

# BRITISH COLUMBIA MINING RECORD

VOL. III.

DECEMBER, 1897.

No 12.

## COAL      COAL The New Vancouver Coal Mining & Land Co.

(LIMITED)

Formerly the Vancouver Coal Company.

ARE THE LARGEST COAL PRODUCERS ON THE PACIFIC COAST.

### NANAIMO COAL      SOUTHFIELD COAL

(Used principally for Gas and Domestic Purposes.)

(Steam Fuel.)

### PROTECTION ISLAND COAL and the NEW WELLINGTON COAL,

(House and Steam Coal), are mined by this Company exclusively.

The Nanaimo Coal gives a large percentage of gas, a high illuminating power, unequalled by any other bituminous coal in the world, and a superior quality of coke.

The Southfield Coal is now used by all the leading steamship lines on the Pacific.

The New Wellington Coal, which was introduced in 1890, has already become a favourite fuel for domestic purposes. It is a clean, hard coal, makes a bright and cheerful fire, and its lasting qualities make it the most economical fuel in the market.

The Protection Island Coal is similar to the New Wellington Coal. This coal is raised from submarine workings under the Gulf of Georgia and is shipped from wharves both at Protection Island and Nanaimo.

The several mines of the Company are connected with their wharves at Nanaimo, Departure Bay and Protection Island, where ships of the largest tonnage are loaded at all stages of the tide. Special despatch given to mail and ocean steamers.

**SAMUEL M. ROBINS, Supt., NANAIMO, B.C.**

## Canadian General Electric Co., Ltd.

HEAD OFFICES: TORONTO, ONT.

CAPITAL, : : : : : \$1,500,000.

FACTORIES: PETERBORO, ONT.

BRANCH OFFICES: HALIFAX, N.S. MONTREAL, QUE. WINNIPEG, MAN. NELSON, B.C. VANCOUVER, B.C.

### Manufacturers of Electric Mining Apparatus

HOISTS, PUMPS, BLOWERS, FANS, BLASTING APPARATUS, DYNAMOS FOR LIGHTING AND POWER, MOTORS FOR ALL PURPOSES.

ELECTRICAL TRANSMISSION OF POWER SUCCESSFULLY OPERATED UP TO 50 MILES BY OUR

**THREE PHASE TRANSMISSION SYSTEM**

WRITE US.

**NELSON**

BRANCH OFFICES IN BRITISH COLUMBIA.

**VANCOUVER**

**PRICE, 10 CENTS.**

# The KLONDYKE

is in Canada, and VANCOUVER, B.C. is the nearest and best outfitting post to start from. No customs duties to pay on goods bought in Canada for the Klondyke..... We carry an immense stock of.....

## Miners' and Prospectors' Supplies

Miners' Picks, Shovels, Gold Pans, Gold Scales, Pack Saddles, Dog Sleighs, Yukon Steel Stoves, Camping Utensils, Tents, etc., etc.....

Correspondence Solicited  
Estimates Furnished...

**McLennan, McFeely & Co.**  
LIMITED,

122 CORDOVA STREET  
VANCOUVER, B.C.

Established 1886

Incorporated 1895

# Do You Want



Lots in Trail, B. C.?

Or in Deer Park?

Or Stock in Lookout Mountain or  
Salmon River Companies?

Or a Prospect with a good showing,  
undeveloped, Cheap?

Or a partially developed Mine or  
Group of Mines, with fine showings?

Or a developed Mine?

If so, come and see or write to

**E. S. TOPPING,**

TRAIL, B.C.

# F. C. INNES,

## Mining Broker and Agent,

Hastings Street West, — VANCOUVER, B.C.

— HEAD OFFICE OF —

The Montreal and British Columbia Prospecting & Promoting Co., Ltd.

The Cinnabar Mining Company of British Columbia, Ltd. Ltd.

The Montreal Hydraulic Gold Mining Co. of Cariboo, Ltd.

The Fern Gold Mining & Milling Company, Ltd. Ltd.

The Prescott Mining Company, Ltd. Ltd.

Two Friends Mine, Ltd. Ltd.



## TABLE OF CONTENTS.

	PAGE		PAGE
Editorial Notes.....	12	Jottings from Cariboo .....	29
How Reports are Written and Prospectuses Prepared.....	17	From Slocan City.....	29
What Is Going to Happen Then .....	17	Some West Kootenay Camps .....	30
Notes .....	18	Revelstoke .....	31
Notice to Non-Subscribers.....	18	Kamloops.....	31
Topics for the Month.....	18	From Kaslo .....	32
A Mine in North-East Kootenay.....	19	Vernon Notes.....	32
Notes on Concentrating.....	20	Publications.....	33
The Location of Mineral Claims .....	22	Stock Market.....	33
British Columbia's Recently Appointed Lieutenant-Governor at Home .....	23	Correspondence .....	34
A Short Cut to Yukon.....	24	London Quotations.....	34
Canadian Mining Investors .....	24	Dividend Paying Mines.....	34
The Coast and Kootenay.....	25	Shipping Mines.....	35
The Tenderfoot in Yukon .....	25	Mining Stocks.....	35
Alberni and West Coast .....	26	Catalogues of Mining Machinery and Supplies...	36
The Strickeen-Teslin Route .....	26	London Registered Companies.....	36
From Rossland. ....	27	Gas Engines .....	38
From Vancouver .....	28	Over Chilcoat Pass by Tramway.....	38

SEE BUSINESS DIRECTORY NEXT PAGE.



WEILER BROS.' WAREROOMS.

ESTABLISHED 1862.

# WEILER BROS.

VICTORIA, BRITISH COLUMBIA.

MANUFACTURERS OF

## FURNITURE, UPHOLSTERY, ETC.

IMPORTERS OF

**Crockery, Glassware, Wallpaper,  
Carpets, Linoleums, Etc.**

Special attention given to Bank and Office Fittings, and Hotel  
and Bar Fixtures. Residences and Hotels  
furnished throughout.

All orders, no matter how large, promptly filled, as we have  
**The Largest Stock in the Province.**

WRITE US FOR CATALOGUE AND PRICE LIST.

# BUSINESS DIRECTORY OF ADVERTISERS.

AINSWORTH—Mining Operators. Strobeck & Co .....	9	TRANSPORTATION COMPANIES—Canadian Pacific Ry .....	41
ALBERNI—Mining Broker. J. F. Bledso.....	35	Northern Pacific Railway .....	41
ASHCROFT—Livery Stables, etc. Trim & Haddock.....	40	Canadian Pacific Navigation Co.....	42
DENVER, COL.—Wire Rope Tramway. Col. Iron Works .....	5	The Columbia & Kootenay S. N. Co.....	42
Fine Balances, etc. Wm. Ainsworth.....	4	Spokane Falls & Northern Railway.....	42
FORT STEELE—Surveying, etc. T. T. McVittie .....	6	Nelson & Fort Sheppard.....	42
GERMANY—Mining Machinery. Fried Krupp .....	3	Red Mountain Railway.....	42
GREENWOOD CITY—Assayers. Guess Brothers.....	4	Kaslo & Slocan R.R.....	42
KAMLOOPS—Hotel. Dominion Hotel.....	3	International Navigation & Trading Co .....	42
KANSAS CITY, Weber Gas and Gasoline Engine Co.....	10	Union S.S. Co .....	42
KASLO—Mining Engineers. Tretheway & Bucke.....	5	City of Kingston (Puget Sound Points) .....	41
Hotel. The Kaslo.....	40	Pacific Coast Steamship Co .....	39
Furniture. J. J. Sehl.....	Cover		
LONDON, ENGLAND—Journal. The Shareholder .....	5	VANCOUVER—Hardware Supplies. McLennan, McFeely	
The Mining Journal .....	4	& Co., Ltd.....	Cover
MONTREAL, QUE.—Mining Machinery. Canadian Rand		Hotels. The Badminton .....	7
Drill Co .....	Cover	Wholesale Druggists. Langley & Henderson Bros.....	10
Jack & Robertson, Wire Rope.....	40	Mining Supplies. John Boyd & Co.....	10
NAKUSP—Hotel. Leland House.....	8	Iron Works. The B.C. Iron Works.....	34
NANAIMO—Coal Company. New Vancouver Coal Co.....	Cover	“ “ Armstrong & Morrison .....	40
NELSON—Hotel. The Clarke Hotel .....	8	Electric Apparatus. Canadian Gen. Electric Co., Cover	
NEWARK, N. J.—Platinum Refiners. Baker & Co .....	7	Mining Brokers. F. C. Innes.....	Cover
NEW DENVER—Assayer, etc. Howard West.....	5	“ “ McKinnon, DeBeck & Co.....	6
Hotel Windsor.....	39	Assayers. J. A. Macfarlane.....	8
NEW JERSEY—Aerial tramways. The Trenton Iron Co.....	39	“ W. Pellew Harvey .....	8
NEW WESTMINSTER—Miners' Supplies. R. F. Ander-		Assayers' Supplies. Macfarlane & Co.....	8
son & Co .....	7	Mining Engineer. W. J. Waterman.....	6
NEW YORK, N. Y.—Blasting Machines. James Macbeth		Mining Supplies. Thos. Dunn & Co.....	5
& Co.....	4	Mechanical Engineer. J. O. Norban.....	42
Carbons, Drills, etc. Theodor Lexow.....	8	Mining Engineers. Bewick, Moreing & Co.....	Cover
Mining Journal. The Engineering and Mining Journal		Mining Machinery. The Wm. Hamilton Mfg. Co.....	Cover
Publishing Company. “The Mineral Industry”.....	9	Machinery Agents, etc. E. H. Heaps & Co.....	9
REVELSTOKE—Hotel. Columbia House .....	6		
Newspaper. Revelstoke Herald.....	9	VERNON—Mining Broker. F. Adrian Meyer.....	6
ROSSLAND—Kamloops Mining & Development Co.....	5		
Mining Brokers. Harris, Kennedy & Co.....	40	VIOTORIA—Wholesale Druggists. Langley & Henderson	
Mining Properties. D. M. Watters .....	8	Bros.....	11
Assayers & Mining Engineers. C. C. Woodhouse, Jr..	39	Albion Iron Works.....	3
Mining Engineer. R. Green.....	40	Metallurgical Works. W. J. R. Cowell .....	7
SANDON—Hotel. Balmoral Hotel.....	40	General Stores. Hudson's Bay Co .....	Cover
SAN FRANCISCO, CAL.—Mining Machinery. Joshua		Explosives. Hamilton Powder Co.....	8
Heady Works .....	6	Electric Supplies. The Royal Electric Co.....	34
Denniston Plating Works .....	5	Preserves. O'ell & Morris .....	9
Assayers' Supplies, etc. John Taylor & Co.....	8	Mining Brokers. A. W. More & Co.....	7
Water Wheels. Pelton Water Wheel Co.....	3	“ “ Beaumont Boggs.....	40
Hoists. Hercules Gas Engine Works .....	7	“ “ Pemberton & Son.....	4
Steel Shoes and Dies. Geo. W. Pennington & Sons...	3	“ “ Geo. D. Scott.....	36
Metallurgical Works. O. A. Luckhardt & Co.....	8	Miners' Supplies. E. G. Prior & Co.....	9
SLOCAN CITY—Newspaper. “Pioneer”.....	36	Books and Stationery. T. N. Hibben & Co.....	39
SPRINGFIELD, O.—Water Wheels. James Leffel & Co .....	5	Furniture. Weiler Bros.....	1
TACOMA, WASH.—Engravings. Spike Bros .....	6	Hotels. Occidental Hotel.....	3
TRAIL—Mines and Mining. E. S. Topping.....	Cover	Wholesale Merchants. R. P. Rithet & Co .....	9
Smelting and Refining Works, Trail.....	42	Grocery Supplies. Lenz & Leiser.....	7
		Biscuits, etc. M. R. Smith & Co.....	9
		Coffees and Spices. Stemler & Earle.....	9
		Drain Pipes. B.C. Pottery Co.....	4
		E. J. Saunderson & Co.....	10
		Retail Liquors. Pither & Leiser .....	35
		WELLAND, ONT.—Dredgers, etc. M. Beatty & Sons .....	6



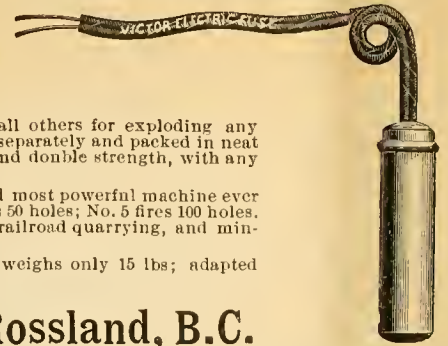




# Electric Blasting Apparatus.

MANUFACTURED ONLY BY

JAMES MACBETH & CO., New York, U.S.A.



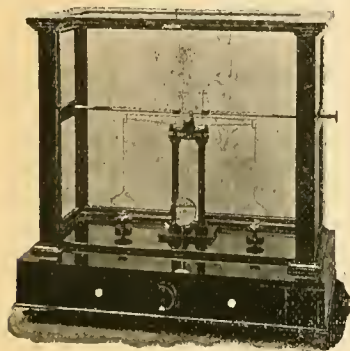
**VICTOR ELECTRIC PLATINUM FUSES**—Superior to all others for exploding any make of dynamite or blasting powder. Each fuse folded separately and packed in neat paper boxes of 50 each. All tested and warranted. Single and double strength, with any length of wires.

**"PULL UP" BLASTING MACHINE**—The strongest and most powerful machine ever made for Electric Blasting. No. 3 fires 30 holes; No. 4 fires 50 holes; No. 5 fires 100 holes. They are especially adapted for submarine blasting, large railroad quarrying, and mining works.

**VICTOR BLASTING MACHINE**—No. 1 fires 5 to 8 holes; weighs only 15 lbs; adapted for prospecting, stump blasting, well sinking, etc.

Send for Catalogue.

Jenckes Machine Co., Agents, Rossland, B.C.



## The Brunton Patent Pocket Mine Transit.

Ainsworth, No. 043, Button Balance. Sensibility, 1-100 Milligramme.

This is a double column 10-in. beam button balance of the most approved design and better than any balance on the market for the price asked. Send for photos of this and other balances to.

This is a convenient and accurate pocket instrument for the use of Mine Engineers, Managers and Foremen, being especially designed for preliminary work under ground and the taking of rough topography above. Send for descriptive circular to.....

The Brunton Patent Pocket Mine Transit.



Manufacturer of

Fine Button Balances for Assayers.

WM. AINSWORTH,

2151 Lawrence Street,

MacFARLANE & Co., Agents, Vancouver, B.C.

DENVER, Colo.

DON'T LET YOUR RIVAL GET AHEAD OF YOU; READ THE GREAT

## The = Engineering = and = Mining = Journal, OF NEW YORK.

\$5

WILL SAVE TIME AND MONEY TO KNOW WHAT OTHERS ARE DOING IN YOUR LINE OF BUSINESS, AND BRING THE PAPER TO YOU 52 TIMES DURING THE YEAR.

Subscriptions received at the office of the BRITISH COLUMBIA MINING RECORD. Sample copies can also be had at this office.

\$5

## PEMBERTON & SON

MINING BROKERS.

Real Estate, Financial and Insurance Agents. Mining Properties for sale. Agents for the Townsite of Alberni. Farming Lands for sale in all parts of the Province.

FORT STREET,



Victoria, B.C.

Established Over Sixty Years.

# THE MINING JOURNAL,

The best, oldest and most widely circulated and influential Mining Paper in the world.

Subscription for British Columbia, £1 8s. per annum.

OFFICES: 18 FINCH LANE, LONDON, E.C.

British Columbia Pottery Company, Limited,  
VICTORIA, B.C.

Salt Glazed Vitrified Sewer Pipe.

TERRA COTTA CHIMNEY PIPE,

Saves cost of Brick Chimneys.

Can be set up by anyone. Accepted by all Insurance Companies.  
FIRE BRICK—ALL KINDS OF FIRE CLAY GOODS.

G. A. GUESS, M.A.

GUESS BROS.,

H. A. GUESS, M.A.

ASSAY OFFICE and  
CHEMICAL LABORATORY.  
GREENWOOD, B.C.

Properties Examined and Reported on. Working Properties Regularly Sampled. Assays and Analyses Carefully Made.



## The Finlayson Patent Wire Rope Tramway

embodies all the good features of the old systems with the addition of many new patented ones, making the most perfect system of rope haulage extant. It is strictly automatic and its capacity runs up to 1,000 lbs. per bucket. Write for special catalogues.

## The Colorado Iron Works Co., Denver, Col.

**SOLE AGENTS and  
MANUFACTURERS**

Catalogues &  
Information  
on application.

**TO THE BRITISH COLUMBIA MINING FRATERNITY:** We beg to announce that we have been manufacturing Ore Dressing Machinery for many years. Our location in the greatest mining centre in the world has made our experience practical, and being thoroughly familiar with the latest and best practices our machinery is designed and constructed accordingly. Our Specialty is **Milling and Smelting Plants and Equipments**. Anything in this line is in our own line, and it is a pleasure always to answer inquiries. We have of late been giving especial attention to Ore Crushing Plants for the Chemical Processes, and are now installing them and guaranteeing any capacity per day desired to any degree of fineness.

**Our Ore Testing Plant** on our premises has a capacity of from five to ten tons per day for concentration and amalgamation, and is in charge of a competent chemist and mill man.

**THE COLORADO IRON WORKS CO., DENVER, COL.**

Turbine  
AND  
Cascade

## WATER WHEEL

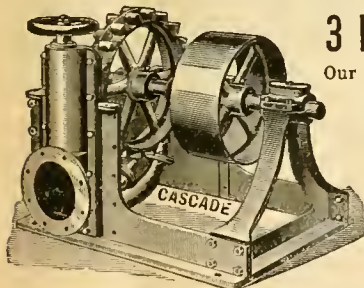
Adapted to all Heads from

**3 Feet to 2000 Feet**

Our experience of **33 YEARS** building Water Wheels enables us to suit every requirement of Water Power Plants. We guarantee satisfaction.

Send for a Pamphlet of either Wheel and write full particulars.

**James Leffel & Co.**  
SPRINGFIELD, OHIO, U.S.A.



Wm. J. Trethewey, M.E.

Maurice A. Bucke, M.E.

## TRETHEWEY & BUCKE, MINING ENGINEERS

Fifteen years' experience  
Silver Lead Mining. . . .

Moreing & Neal's Code. Cable address, WURRU.

**KASLO, British Columbia.**

## THE SHAREHOLDER

YEAR'S SUBSCRIPTION 8s. 8d.

TELEGRAMS: "Suasible," London.

## A Financial "Review of Reviews."

PUBLISHED EVERY MONDAY IN LONDON, ENG.

Head Office:—88 Fleet Street, London, E.C., England.

The World's Financial Press Condensed.

## FOR MINING SUPPLIES

Send your orders or Write for prices to

## Thos. Dunn & Co., Ltd.

We have the Largest Stock of this class of Goods on the Coast—Steel Picks, Shovels, Hammers, Coal, Wire Rope, Manilla Rope, Blocks, Dynamite, Fuse Caps.

**VANCOUVER, B.C.**

## HOWARD WEST MINING ENGINEER

(Associate of Royal School of Mines, London, Eng.)

Properties examined and reported on for intending purchasers. Three years in the Kootenay. A.B.C. Code.

Bellevue Ave.,

**NEW DENVER, B.C.**

## The Kamloops Mining & Development Co.

(Limited Liability.)

C. C. WOODHOUSE, JR., Min. Eng. & Assayer  
H. E. D. MERRY, Metallurgical Chemist.  
FRED M. WELLS, Mine Examiner.

**DIRECTORS:**

H. E. FORSTER, - - - President.  
C. C. WOODHOUSE, JR., - Secretary.  
F. M. WELLS.

CHEMICAL LABORATORY AND ASSAY OFFICE  
ROSSLAND, B. C.

Mining - Properties - Examined  
Reports made with maps and photographs.  
We are ready to supply investors with good properties.



Telegraph Address:  
"Woodhouse, Rossland."  
Mining Code:  
"Bedford McNeill"

*C.C. Woodhouse Jr.*



# MACKINNON, DEBECK & CO.



## MINING BROKERS AND AGENTS.

Having been residents of British Columbia for the past twenty-six years, we are in a position to furnish the most reliable information to be obtained respecting the valuable mineral resources of the province. Correspondence solicited. . . . Represented in London, Eng., by prominent financial brokers. Head office of the Golden Cache Mines Co., Ltd., of Lillooet, B.C. Cable address, "CORTES," Vancouver, B.C. Codes: A.B.C., Moreing & Neal; Bedford-McNeill.

611 Hastings Street West,

VANCOUVER, B.C.

Thos. T. McVittie,

—P.L.S. AND C.E.,—

FORT STEELE, B.C.

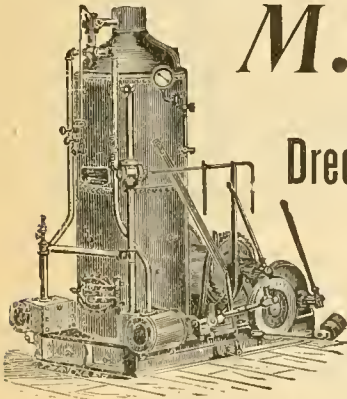
F. ADRIAN MEYER BROKER

Sub-Collector of Customs. . . .

Deputy Collector of Inland Revenue.

Notary Public

VERNON, B.C.



## M. BEATTY & SONS,

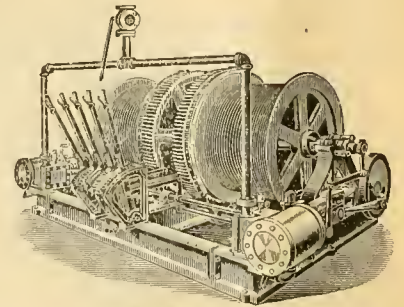
WELLAND, ONTARIO,

Dredges, Ditchers and Steam Shovels,

For Dredging, Ditching, Dyking, Gold Mining, Etc.  
Of various styles and sizes to suit any work.

Mine Hoists, Hoisting Engines, Stone Derricks, Horsepower  
Hoisters, Suspension Cableways, Submarine Rock  
Drilling Machinery, Gang Stone Saws, Centri-  
fugal Pumps for Drainage Works, Pump  
ing Sand, Gold Mining, Etc.

We also furnish WIRE ROPE at Lowest Prices.



## Joshua Hendy Machine Works,

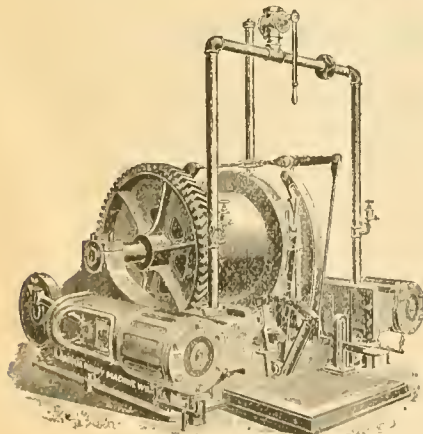
Nos. 38 to 44 Fremont St., SAN FRANCISCO, Cal., U.S.A.

—MANUFACTURERS OF AND DEALERS IN—

Hydraulic <sup>N</sup> Quartz Mining <sup>N</sup> Milling Machinery

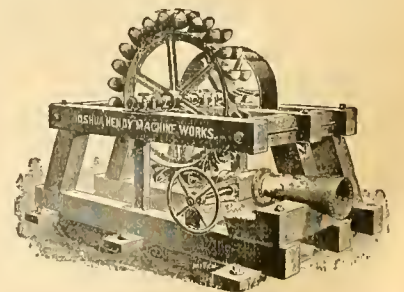
—COMPRISING—

HYDRAULIC GIANTS, CONCENTRATORS,  
WATER GATES, SMELTERS,  
SHEET IRON and HOISTING and  
STEEL PIPE, PUMPING PLANTS,  
STAMP MILLS, SAW MILLS,  
ORE CRUSHERS, MINE and MILL  
ORE FEEDERS, SUPPLIES, Etc., Etc.



HOISTING ENGINE.

Catalogues and Prices Furnished  
Upon Application



IMPACT WATER WHEEL.

Box 123.

Telegraphic Address, "Waterman. Vanc."

W. J. WATERMAN,  
Mining . .  
Engineer,

610 Granville Street,

VANCOUVER, B.C.

## Columbia House



RATES:  
\$1.00 PER DAY.

THE LARGEST HOTEL IN TOWN  
CENTRALLY LOCATED.  
BEST ACCOMMODATION.  
ST. LEON HOT SPRINGS, on Upper  
Arrow Lake, run in connection

CHOICE WINES, LIQUORS & CIGARS.

BROWN & CLARK, Props. REVELSTOKE, B.C.



**PLATINUM REFINERS**

N.Y. OFFICE:—

121 LIBERTY STREET.

WE are always in the market for : : :  
: : : CRUDE OR NATIVE PLATINUM.

**BAKER & CO.**  
**NEWARK, N.J.**

**R. F. Anderson & Co.**

**COLUMBIA HARDWARE HOUSE,**  
**NEW WESTMINSTER, B.C.**

General Hardware, Picks, Shovels, Steel, &c., Dynamite Fuse and Quicksilver.

ALUMINUM CAMP OUTFITS for Prospectors and Miners.

WRITE FOR PRICES.

**Victoria Metallurgical Works Co., Ltd.,** President: **HON. E. DEWDNEY,**  
**VICTORIA, B.C.**

Assaying in all its branches  
Samples of Ore Treated by Every Known  
Process.

Agents for Joshua Hendy Machine Works.

FOR CHARGES AND FULL PARTICULARS, APPLY TO

Mill Tests up to 100 tons.  
Mining Propositions Examined and Developed.  
Gold Bullion Refined or Purchased for Cash.  
Mining Machinery Designed and Erected.

Reference :  
BANK OF MONTREAL.

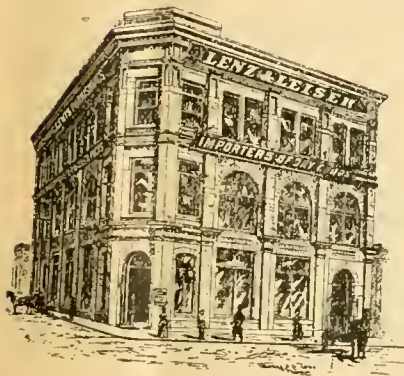
**W. J. R. COWELL, B.A., F.G.S., M.E.,**  
**MANAGER,** 43 Fort Street, **VICTORIA, B.C.**

M. LENZ

G. LEISER.

**LENZ & LEISER,**

—IMPORTERS OF—



*Foreign and  
Domestic  
Dry Goods,  
Gents'  
Furnishings,  
Etc., Etc.*



The Largest Stock in the Province. Have recently imported  
special lines for the Mining Trade.

9 AND 11  
YATES ST., **VICTORIA, B.C.**

**A. W. MORE & CO.** ☼**MINING and STOCK BROKERS.**

Codes used : Bedford-McNeill's, Moreing &  
Neal's, Clough's, and A.B.C., Fourth Edition.

86 Government Street,

VICTORIA, B.C.

**The Badminton,**

(Late Manor House)

H. R. Stratton, Mgr., **VANCOUVER, B.C.**

# C. A. LUCKHARDT & CO. Nevada Metallurgical Works

A. H. WARD

Established 1869.

H. C. WARD

## ASSAYING, ANALYSIS, SAMPLING.

STAMP MILL &amp; CONCENTRATOR IN OPERATION ON PREMISES. Practical Working Tests of Ore by all Processes.

71 and 73 Stevenson Street,

SAN FRANCISCO CAL.

## BRITISH COLUMBIA BRANCH—HAMILTON POWDER CO.

(Incorporated 1861.) Manufacturers of

High Explosives, Blasting, Mining and Sporting Powder.

DEALERS IN ELECTRIC BLASTING APPARATUS, SAFETY FUSE, DETONATORS, ETC.

HEAD OFFICE: MONTREAL.

BRANCH OFFICE:

LOCAL OFFICES:

WORKS:

VICTORIA.

VANCOUVER AND NELSON.

NANAIMO.

Established during the first gold discoveries in California. Incorporated, 1895

### JOHN TAYLOR & CO.,

63 FIRST ST., SAN FRANCISCO, CAL.



Importers and Manufacturers of Assayers' Mine and Mill Supplies, Chemicals and Chemical Glassware and Apparatus.

All articles required for a chemist or assayer and for fitting up a quartz mill. None but the best chemicals, crucibles and other appliances, such as our long experience assures us to be the best, are kept in stock, and all furnished at reasonable prices.

Agents for the Pacific Coast of The Denver Fire Clay Co. and Morgan Crucible Co., Battersea, England.

Borax, Bone Ash, Cyanide Potass., Manganese from our own mine for working sulphurets and gold ores, in ton or car lots, and other articles of Californian production at manufacturers' prices.

Our new illustrated catalogue and assay tables sent free on application.



### THE LELAND HOUSE,

NAKUSP, B.C.

Commercial and Family Hotel. Fitted for the Comfort of the Travelling Public. COMMODIOUS SAMPLE ROOMS.

MRS. D. A. McDUGALD, Proprietress.

### W. PELLEW-HARVEY, F.R.S.

(Mem. Fed. Inst. M. and M.E.)

### Assayer and Mining Engineer.

Appliances for testing Parcels up to 200 pounds.

PENDER ST.

VANCOUVER, B.C.

### THEODOR LEXOW 195 BROADWAY, NEW YORK,

(WESTERN UNION BUILDING.)

IMPORTER OF

### CARBONS (Black Diamonds).

FOR DIAMOND DRILLS AND ALL MECHANICAL PURPOSES.

HENRY DEMMERT.

### J. A. MACFARLANE,

(Fellow of the Chemical Society, London, since 1880.)

Mines Examined and Reported On. Assays Made with scrupulous personal care.

623 HASTINGS STREET,

VANCOUVER, B.C.

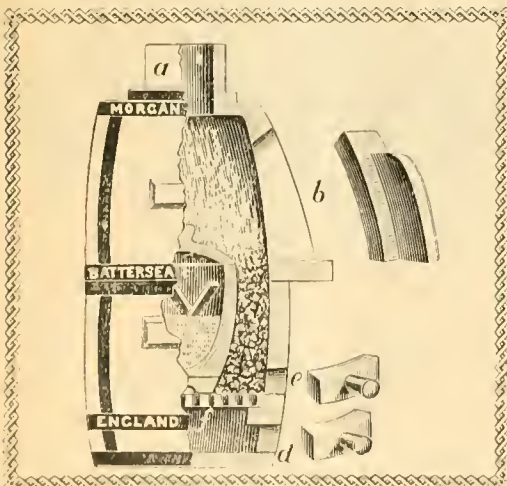
Late of the Royal Hotel, Calgary.

### The Clarke Hotel,

JOSEPHINE STREET,

E. C. CLARKE, Proprietor.

NELSON, B.C.



### MacFARLANE & CO.,

## Assay Mining and Mill Supplies

WE are Manufacturers and direct Importers, and carry a large Stock of Balances, Furnaces, Fire Clay Goods, Scientific and Practical Books, Glassware, Platinum Goods, Acids, Chemicals, and all other Assayers' and Miners' requirements.

SOLE AGENTS for Morgan Crucible Company, Battersea, Becker's Sons' Balances, Etc.

Write for  
CATALOGUE

P.O. BOX 355, VANCOUVER, B.C.  
Telegraphic Address: "ASSAY," Vancouver, B.C.



# R. P. RITHET & CO.,

## WHOLESALE MERCHANTS, SHIPPING AND INSURANCE AGENTS.

PROPRIETORS OF VICTORIA WHARF, OUTER HARBOUR, COLUMBIA FLOURING MILL, ENDERBY, AND VERNON MILLS, VERNON.

Agents for Victoria Lumber and Manufacturing Company, Chemainus, V.I.; Victoria Canning Company of British Columbia; Fraser River, Skeena River and River's Inlet Canneries; Skeena River Packing Company, Skeena River; Lowe Inlet Packing Company, Lowe Inlet; Pacific Coast Steamship Company, San Francisco; Puget Sound Tugboat Company, Port Townsend; Queen Insurance Company of America (Fire); English and American Marine Insurance Co.

LLOYD'S AGENCY. HAWAIIAN CONSULATE.

WHARF STREET, - - - VICTORIA, B.C.

## M. R. SMITH & CO. ★

ESTABLISHED 1858.

### BISCUIT MANUFACTURERS.

GOLD MEDALS awarded at Royal Agricultural Exhibitions, 1895-96. MEDAL AND DIPLOMA awarded at Colonial & Indian Exhibition 1886

SILVER MEDALS at Provincial Exhibition.

VICTORIA, - - B.C.

## Okell & Morris' Fruit Preserving Co.

MANUFACTURERS OF

Candies, Mincemeat; Orange, Citron and Lemon Peels. Preserves and Marmalade. Pickles and Vinegars.

We claim without exception to make the **Purest and Best Selling Goods in Canada.** Our manufactures are carried by the following well-known and fair-dealing wholesale firms in Vancouver and Victoria:

Braid & Co.	Wilson Bros., Vancouver.
R. P. Rithet & Co., Victoria.	S. Leiser & Co., Victoria.
Wilson Bros., "	Hudson Bay Co., "
J. H. Todd & Son, "	T. Earle, "

VICTORIA, B.C.

The Scientific Publishing Co., Publishers.

Engineering and Mining Journal (weekly) per year	\$ 5 00
The Mineral Industry [annual] an Encyclopedia of Mining and Metallurgy: Vol. I. From earliest times till the end of 1892	2 50
Vol. II. Supplementing Vol. I. to the end of 1893	5 00
Vol. III. Supplementing Vols. I.-II. to the end of 1894	5 00
Vol. IV. Supplementing Vols. I.-III. to the end of 1895	5 00
Vol. V. Supplementing Vols. I. IV. to the end of 1896	5 00
Universal Bimetallism. By Richard P. Rothwell	50
Stamp Milling of Gold Ores. By T. A. Rickard	2 50
Modern Copper Smelting. By E. D. Peters, Jr.	5 00
Matte Smelting. By Herbert Lang	2 00
Copper Matting & Converting & Lead Smelting. By H. W. Hixon	3 00
The Metallurgy of Lead. By H. O. Hoffman	6 00
The Metallurgy of Steel. By Henry M. Howe	10 00
Manufacture & Properties of Structural Steel. By H. H. Campbell	4 00
Lead and Zinc Mines of Missouri and Kansas. By J. R. Hollibaugh	50
The Phosphates of America. By Francis Wyatt	4 00
Ore Deposits of the United States. By J. F. Kemp	4 00
Manual of Qualitative Blowpipe Analysis. By F. M. Endlich	4 00
Outline of Qualitative Chemical Analysis. By J. A. Miller	1 50
A New Basis for Chemistry. By Thomas Sterry Hunt	2 00
Chemical and Geological Essays. By Thomas Sterry Hunt	2 50
Systematic Mineralogy. By Thomas Sterry Hunt	5 00
The Canadian Ice Age. By Sir J. William Dawson	2 00
Gems and Precious Stones of North America. By G. F. Kunz	10 00
Mining Accidents and Their Prevention. By Sir F. A. Abel	4 00
The Mining Laws of the Republic of Colombia	1 50
Parliamentary Tactics. By Harry H. Hunt	50

SOLE AMERICAN AGENTS FOR

Report Book for Mining Engineers. By A. G. Charlton	2 00
Mining and General Telegraphic Code. By Bedford McNeill	7 50
Florida, So. Carolina & Canadian Phosphates. C. C. Hoyer Millar	2 50

If you desire books of any Kind write to The Scientific Publishing Co.

## E. H. HEAPS & CO.,

### MACHINERY, MINING AND INVESTMENT BROKERS.

506 Cordova St. VANCOUVER, B.C.

MANUFACTURERS' AGENTS,

AND DEALERS IN

New and Second-Hand Machinery, Diamond Drills, Canning and Saw Mill Machinery, etc., etc., etc.

REPRESENTING—Cowan & Co., A. R. Williams, M. C. Bullock Manufacturing Company, Clayton Air Compressor Works, and other first-class manufacturers. . . .

## E. G. PRIOR & CO., Ltd. Ltd.

VICTORIA, VANCOUVER and KAMLOOPS.

# Mining Supplies

JESSOP'S DRILL STEEL, BAR IRON, all sizes, STRIKING HAMMERS, ORE TRUCKS, TRACK IRONS, BLAKSMITHS' TOOLS, BUILDERS' HARDWARE.

FARM IMPLEMENTS and VEHICLES of all descriptions.

—WRITE FOR PRICES.—

## PIONEER STEAM COFFEE & SPICE MILLS,

ESTABLISHED 1868.

Manufacturers of Coffee, Spices, Cocoa, Cream Tartar, Mustard and Baking Powder. : : :

## STEMLER & EARLE, Pembroke Street,

Between Government and Douglas, VICTORIA, B.C.

Read the

## "REVELSTOKE HERALD."

(SEMI-WEEKLY, WEDNESDAY AND SATURDAY)

For information with regard to Illecillewaet, Trout Lake, Lardean, Albert Canyon, and Jordan Pass mining district and the famous Big Bend placer and quartz mining section.

# Weber Gasoline Hoisting Engine.

## Money Savers

▲  
COSTS to run one cent per horse power per hour. No coal or wood and very little water required.

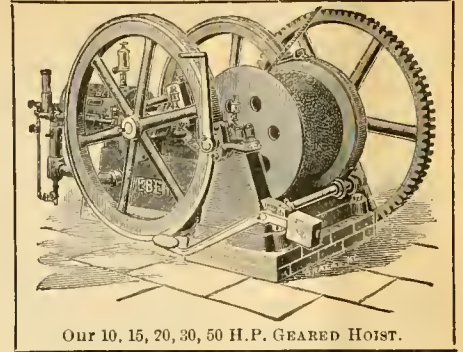
We also build **Single and Double Hoisting Engines** both Geared or Friction, and furnish

**Wire Rope, Ore Buckets, Cars, Shives, etc.**, making complete outfits. "Weber" Hoisters and Engines use Gasoline, Naptha, Distillate, etc., for fuel. They can be used UNDERGROUND or on the dump. Altitude makes no difference in the operating of the "Weber." **SAFE, STIFF, STRONG.**

### Every Engine Sold on Absolute Guarantee.

In use for all purposes Used by such concerns as K. O. Consolidated Smelting Co., Guggenheims, etc. For prices and particulars, write us, stating duty required, Horse Power, etc. Catalogues, "Stationary" and "Hoisting" on application to

**Weber Gas and Gasoline Engine Company,**  
S.W. BOULEVARD. 454 KANSAS CITY, MO., U.S.A.



Our 10, 15, 20, 30, 50 H.P. GEARED HOIST.

The Gold Fields of

**ALBERNI**

AND

**YUKON** = =

## We are Miners' and Prospectors' Outfitters

Years of experience in this line have taught us just what is needed by those who are starting out to exploit the wealth of this golden country. Our knowledge is at your service

**E. J. Saunders & Co., GROCERS**

VICTORIA and ALBERNI

Wrought Iron Pipe, Lead Pipe,  
Sheet Lead, Pig Lead, Ingot  
Tin, Cast Iron Coil Pipe, Brass  
and Iron Valves, Pipe Fittings

Engineers' and Plumbers'  
SUPPLIES.

Sinks,  
Baths,  
Marble  
Slabs,

**John Boyd & Co.**

Packing, Injectors, Lubricators,  
Oil Cups, Steam and Water  
Gauges, Sanitary Earthen-  
ware, Sheet Iron, Sheet Zinc

METAL BROKERS  
VANCOUVER

Plumbers'  
Brass  
Goods.

*Langley & Henderson Bros.*

(Established 1858.)

WHOLESALE DRUGGISTS.

Largest stock in the Province of Chemicals, Acid, &c., imported specially for the Mining Trade.

VICTORIA and

VANCOUVER, BC



# The Mining Record.

Vol. III.

DECEMBER, 1897.

No. 12

## BRITISH COLUMBIA MINING RECORD.

Devoted to the Mining Interests of British Columbia.

PUBLISHED BY

The Mining Record Limited Liability.

ADVERTISING RATES ON APPLICATION.

H. MORTIMER LAMB, Managing Editor,  
P.O. Drawer 57, Victoria, B.C.

London Office : Leadenhall Buildings, London, E.C.

### EDITORIAL NOTES.

**D**URING the past thirty years English capital has been invested to a large extent in mining ventures in the Pacific States of the Union, and notwithstanding the fact that quite ninety per cent. of these investments have turned out badly, owing chiefly to dishonest representation on the part of vendors or promoters the British investor will not accept the warning. There are undoubtedly a proportion of valuable mines in California, in Idaho, in Nevada, but Americans are knowing enough to be aware that it is just as easy and very much more profitable not to say patriotic, to palm off a wild-cat property on the gullible Britisher as to sell him a proved mine or even a genuinely promising prospect.

A correspondent writing from San Francisco to a London mining journal on this question advises Englishmen to think twice before investing in American mines—at least in California, Nevada or Idaho. The feeling, he says, in the first-named state is intensely anti-English, and Englishmen are regarded as the natural prey of the mining sharpers. When some years ago a Bill was before Congress to prevent aliens purchasing land in the United States a leading San Francisco mining paper recommended that an exception be made in favour of mines, “as we had so few good ones that selling wild-cats to the Britishers would be only spoiling the Egyptians.” The writer concludes his letter with a highly commendatory reference to British Columbia as a field for investment, not only on account of the unquestionably great mineral resources of the country, and the favourable prevailing economic conditions, “but, above all,” the advantage of enjoying in the province “the protection of British law, so that there is no danger of the purchaser of a mine being legally swindled out of his property should it prove valuable.”

Elsewhere we publish a letter on “the Stickeen route” by Mr. Alexander Begg, C.C. (does C.C. stand for considerate chartermonger?) The article is, we believe, accurate as regards data, hence its publication, but we have been somewhat disappointed with the subject matter thereof, for we asked for bread

(by requesting our correspondent to disclose his plans of building a railway and colonizing the lands granted his company by the government), instead Mr. Begg has given us a stone (in the shape of a nicely worded and seductive advertisement of patent medicine resemblance, setting forth the valuable property he is possessed of in charter to build a road from the Stickeen to Teslin lake). Now we, personally, certainly have no quarrel with Mr. Begg. He is no doubt a dear (at any price) old gentleman enough, but we have failed utterly to find any one to suggest that his services have been adequately valuable to the province to entitle him to so munificent a gift from the government as he seems to have obtained. We are, unfortunately, not sufficiently familiar with the topographical features of the country between the Stickeen River and Lake Teslin to state authoritatively whether there are means of constructing a railroad except through the territory covered by Mr. Begg's charter; if not, it is to be presumed that before a road can be built by any corporation financially able to carry out the undertaking, as a preliminary step it would be compulsory to purchase Mr. Begg's parliamentary rights. Indeed, it is currently rumoured that a syndicate associated with the C.P.R. propose to do so, and that, moreover, Mr. Begg will agree to sell for \$60,000. Meanwhile, it would be uncommonly interesting if some one would endeavour to explain why this abominable system of charter-mongering is tolerated in an enlightened age and in a more or less civilized country. Why should Mr. Begg or any one else have the right to dictate terms, and if he sees fit, prevent others from turning our natural resources to profitable account? Or why should a *bona fide* railway corporation be compelled to pay through the nose to any inpecunious lobbyist that can worry a private bill through the House? That we have made a mess of our railway policy in British Columbia is undeniable, but it is sincerely to be hoped the Government will profit by past experiences in dealing with the many applications for charters that will be presented next session. The popular sentiment throughout the province is for state ownership, but it must be admitted that any Legislature attempting to prosecute such a policy would be called upon to face very serious problems. Nevertheless, if at the present juncture state ownership is impracticable, that is no reason why charters should be granted to irresponsible persons; nor, so far as we are aware, is there anything to prevent the government owning sufficient shares in projected railroads to bring such enterprises under state supervision and control.

With regard to the proposals to establish smelters at Midway and Grand Forks, a correspondent from Boundary Creek writes to the MINING RECORD as follows: "At the present time representatives of several smelting companies are visiting Boundary Creek with a view to devising means whereby the ore deposits of this district may be economically treated. As there is little doubt but that a large percentage of the Boundary ores will have to be treated close to the camps the idea of erecting local reduction works appears to be the only practical solution of the problem. That the ordinary ores of Boundary will ever be shipped for treatment to either Trail, Northport or smelters on the Coast is more than unlikely when it is borne in mind that not only are the Boundary ores generally low grade, but every possible facility exists for erecting and successfully operating local smelters and matting plants. One of the schemes now under contemplation is the erection of reduction works on each side of the Boundary range so that the ores on each slope can be handled entirely down grade and the natural waterpowers available can be utilized to operate tramways to and from the various mining camps. Midway and a point two miles west of Grand Forks have been selected as most suitable sites, because not only the ores from the Boundary camps proper could be transported to either smelters by down grade haul, but both sites are centrally located with regard to other promising camps. For instance, at Midway ores from Meyers Creek, Rock Creek and the main Kettle River would be treated and the North Fork and Christina Lake camps are in like manner tributary to Grand Forks."

In the past two or three years there have been so many resultless proposals to establish reduction works on Boundary Creek that if the conditions had remained unaltered it would be justifiable to feel skeptical regarding the consummation of new schemes. The encouraging result of this summer's development work on some of the more promising claims of the district has, however, attracted the attention of many of the best known mining men in the West, and the probability, or almost we might say, certainty, that railway connection will be provided next year between Penticton and the Boundary Creek camps, points to the speedy development of the district.

We have received numerous enquiries from correspondents anent the practicability of the Ashcroft route to Yukon. Advice on the matter can hardly be given at the present juncture, reliable data not being procurable. But we are strongly of the opinion that for those contemplating the journey to the northern gold fields next year other routes now offer superior advantages. A start from Ashcroft could not be made until late in the spring or towards early sum-

mer, and distance conditions are such that only thoroughly experienced men, used to travel trails, could hope to reach the Yukon gold region in time for the season's prospecting. It is extremely probable, however, that starting from either Ashcroft or Kamloops a railroad will at a future date be constructed northwards and this doubtless will be eventually the main highway to Yukon. Meanwhile, the Stickeen-Teslin Lake route would seem certainly the best.

In a former issue we drew attention to the fact that the Provincial Government had not, according to the general expectation, appointed an Inspector of Mines. We have since been informed that Mr. Carlyle, the Provincial Mineralogist, in point of fact acted in the capacity of inspector this year, visiting, during his tour of the districts last summer, all the larger mines and inspecting the workings. So long as the duties of the inspectorship do not interfere or clash with Mr. Carlyle's regular work this arrangement has its advantages. It is, of course, economical, and certainly no one could be better qualified than the Provincial Mineralogist to act as Mine Inspector. Nevertheless, in the interests of both mine owners and employees, it is desirable that a resident official should be appointed in Kootenay with as little delay as possible to make the rounds of the respective camps periodically, for, however safe a mine may be one month, it by no means follows that it will be so the month after.

A Klondyke prospectus of recent date contains the following information(?):

"Mr. Bratnober, the confidential agent of Messrs. Rothschild, and the reported authorized negotiator for a London exploration company, says in twelve hours gold dust and nuggets worth \$20,000,000 were shovelled from a gulch near Eldorado Creek, a single pan yielding \$800."

Surely this is not the same Mr. Bratnober who, in an article to the *New York Engineering and Mining Journal* of October 23rd, estimated the probable gold output of Yukon for 1898 would be "in the neighbourhood of \$5,000,000." If so, he either has been grossly misquoted in the prospectus aforementioned, or he deserves to live in history as a distinguished man who completely out-Munchausened Munchausen. It must, however, be remembered that some people have great powers of adaptability. Perhaps Messrs. Rothschild wanted a boom report and it is of course well-known that the *Engineering and Mining Journal* is not a boom paper.

In British Columbia people are wondering when the British public will begin to realize that a majority at least of the recently launched Klondyke ventures



are veriest swindles, wherefrom only promoters and their agents will derive benefit. In fact the Klondyke boom what ever else may be said for it, has been a God-send to the London promoters and curb-stone brokers, and they have not been slow in working it for all it is worth. It is a matter of doubt whether there is a single Klondyke company, actually owning property in Yukon. Most of the prospectuses are crammed with specious promises and plausible statements of options and prospects. But options are not assets, and promoters' promises are only relatively valuable. Of course the public are perfectly well aware of these facts and shares are bought merely on speculative grounds, but there is a factor that has not been considered and that is Yukon's geological position and the climatic conditions governing there. Applied to other countries some of the proposed Klondyke company schemes might be feasible enough. As it is, unfortunately, they are not.

We have ere this been obliged to criticize somewhat strongly the actions of Ministers of the Crown in allowing their official positions to be used to serve the purposes of company promoters. Again, regretably, this matter is forcibly introduced owing to the publication on the prospectus of a new issue, the Dawson City (Klondyke) and Dominion Trading Corporation, Ltd., of the names and the official titles of the Premier and President of the Council of British Columbia as members of the advisory board. An entire page of the London *Daily Standard* of October 29th, is devoted to this company's advertisement, and not content with printing the above announcement regarding the association of the Ministers in bold type across the page, so marked an anxiety is evinced to impress its importance on the understanding of the "cautious investor" that the statement is repeated no less than nine times with embellishments!

We can hardly believe that either Mr. Turner or Mr. Pooley had any idea when consenting to act on the advisory board of this company that so scandalous a method of advertising would be resorted to and we are strongly inclined to ascribe the chief blame to the promoters of the enterprise for there is no evidence to show that either of the gentlemen named thus authorized the publication of their official titles on the company's advertisement or prospectus.

The fact, however, that the case in question has elicited from the influential English press loud expressions of disapproval and expostulation cannot be overlooked and while we may perhaps exculpate the British Columbia Ministers of intentionally using their official titles to boom the stock of the Dawson City (Klondyke) and Dominion Trading Corporation, we must bear in mind that the result is in no wise affected whether the act was intended or otherwise, and the

fact remains that even upon the most charitable, albeit we hope just, hypothesis, we must deplore an exhibition of culpable carelessness and want of prudence on the part of the British Columbia Ministers.

Of the Company itself the criticism of the *Saturday Review* of October 30th is sufficiently crushing: "The reception," it says, "which a small part of the press, lay and financial, have received the prospectus of the Dawson City (Klondyke) and Dominion Trading Corporation is one of the most painful incidents of modern journalism. Ever since the Klondyke gold fields were first discovered the name has been attached to a number of wild-cat schemes by which the innocent investor has been asked to entrust certain gentlemen, not always of the highest reputation, with *carte blanche* to do what they like with the investor's money. As regards the confiding element, the Dawson City enterprise is no exception to the rule. The directors have nothing to buy or sell at present, but with amusing impudence ask the public to subscribe no fewer than 500,000 £1 shares in order that these gentlemen, who include a General in the Army, and others equally versed in business matters, may dabble in gold miles, town properties and dry goods stores of a nebulous description. General Sir Michael Bidulph is no doubt added to the directors in the hope that his title may act as a sort of appetizer to the public. Sir Michael, perhaps, took the respectability of the Company for granted on the strength of the promoter of this unwieldy enterprise having drawn a modest salary in past days—if indeed he does not draw it now—as a clerk in the lower division of the War Office. If the investor is fool enough to trust blindly to Sir Michael and a group of guinea pigs, we cannot help it. But fortunately, we still have some belief in the good sense of the British public."

Since this was published two things have, we understand, happened: General Sir Michael Bidulph has sent in his resignation as a director, and the attempt to float the stock of the Company completely failed—both events must be attributed to press influences. Here we had a clear case of a promoter over-reaching himself, and the advertising dodge which was adopted has become "played out." Had Mr. Turner been described in the prospectus as senior member of the highly respectable firm of Turner, Beeton & Co., and Mr. Pooley as a prominent barrister of Victoria; had objectionable features such as that of deferred shares sharing profits after 20% dividend has been paid, not been introduced; had the Company simply asked for capital to carry on a Klondyke trading and transportation business, there is reason to believe its reception at the hands of the press and the public would have been very different and the recent unpleasantness would have been avoided. There is no earthly reason why such an enterprise as the establishment of stores in the Yukon

and the providing of adequate facilities for the transport of passengers and supplies to the gold fields should not be very profitable if properly directed, and no man could be found more capable than Mr. Turner to carry an undertaking of this sort to a successful issue, provided he could give it his undivided attention.

The Tangier Mine, Limited, has just been registered in London with a capital of £120,000 in £1 shares, the object of the Company being "to adopt and carry into effect an agreement expressed to be made between the Gold Fields of British Columbia, Limited, and this Company for the acquisition by purchase or otherwise of the Tangier mineral claim, situated in the North Kootenay division," etc., etc. All this is right enough and in order and we merely publish the information because of its significance with regard to more interesting matters.

And here is something truly interesting, merely a specimen of the British post card. This particular post card is, however, so distinguished from ordinary common or garden post cards that it is quite worth preserving not only on account of the astonishing nature of the printed matter which adorns the back, but also as showing to what great uses even such humble instruments as post cards may be put under the skillful manipulation of the company promoter. Ere proceeding with a further description of this precious albeit rather dirty bit of paste-board, we must premise with the seemingly irrelevant remark that the Waverley mine is in the same vicinity as and we believe adjoins the Tangier, and both were owned by the Gold Fields of British Columbia, Limited. But to return to our muttons: This post card is one of several thousand similar that were dispatched all over the United Kingdom. On the address side is written in legible letters "Tangier, Gld., B.C.," and on the back is printed this news.(?) We reproduce as nearly like the original as our type admits:—

The following paragraph appeared in the "Rossland Weekly Miner," of Thursday, 9th September, 1897, and was contributed by a gentleman who has had a very large experience of the Mines of the country.

#### The Wonderful Waverley.

"I have not yet seen the development under way in the Waverley group near Albert canyon, but experienced men who have visited the property say that the mine is a phenomenon. J. Nagle, formerly Mining Recorder at Golden, recently visited the mine, and he tells me that there is \$3,000,000 worth of ore in sight. The clean ore body is eight feet wide, and averages 286 ounces in silver, 20 per cent. copper, and \$28 in gold. Mr. Nagle considers it one of the bonanza mines of British Columbia."

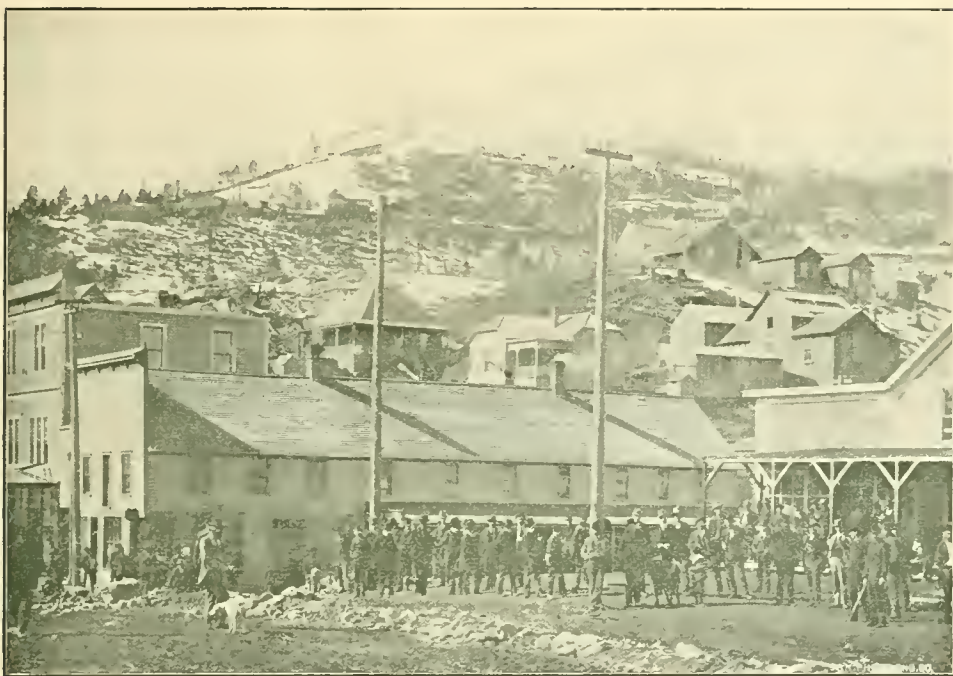
Of course the aim of the foregoing is to boom Waverley stock, but in this instance it was used to give the Tangier a leg up on the strength of the richness

of the adjoining claim. This is frequently done, and persons inexperienced in mining are often victimized in consequence. The practice is therefore wrong enough even when the statements regarding the property described are correct. But in the case of the Waverley the statements are glaringly false in every particular. In the first place there is no copper at all in the Waverley ore; and both the silver and gold values as given are decidedly exaggerated. But even if we were to accept these as correct there is no getting over the preposterous absurdity of the assertion that there is \$3,000,000 worth of ore in sight on the property. There is no mine in British Columbia about which at the present time such a statement could be made, and considering the comparatively small amount of work done on the Waverley and the fact that no ore has been blocked out—but what is the use of discussing the matter further. We may, we think, venture the opinion that that excellent paper, the *Rossland Miner*, in whose columns it is alleged these absurd statements first appeared, will regret no less than we do the publication among its usually reliable reports of the babblings of such an irresponsible individual as this Mr. Nagle appears to be. Nevertheless, we would very much like to know who is responsible for the printing and distribution of the post cards aforesaid. Suspicion certainly points to Mr. Grant-Govan or his associates, and if this surmise is correct will Mr. Govan be good enough to vouchsafe some explanation. Either he knew that the paragraph about the Waverley was a lie *in toto* or he did not. If he did, how can he excuse his conduct in circulating or allowing to be circulated false reports of the property he directs? If he did not, the sooner he and his co-directors send in their resignations the better. The Waverley is undoubtedly a good prospect, and for that matter so may the Tangier be, but that in no way alters the bearing of the case. We have given the above as an example of the many cases that have come to our notice of the shameful manner in which promoters in London are taking advantage of the ignorance of the British public with regard to this province in order to boom certain stock.

Good mines do not require booming, and one hardly hears a word said of the best properties such as the Payne in the Slocan. Another point English investors should remember is that for many years past shrewd investors, mostly Americans, have been on the lookout for good things, and not many opportunities have been missed. It is not likely that Johnny-come-latelies, such as Mr. Grant Govan and men of his stamp are going to pick up prospects for a song that after six months' development will be entitled to be described as valuable mines.

Is there not some sort of an organization in the province called the British Columbia Association of





LE ROI AND WAR EAGLE MINES, FROM COLUMBIA AVENUE, ROSSLAND, B.C.



FURNACE BUILDING, HALL MINES SMELTER, NELSON, B.C.





Mining Engineers, or is it moribund? One never hears of it doing anything, except to dun members for their subscriptions. Is it fair to ask whether it ever did anything else? We ask these questions now because there is a capital opportunity for the formation of a useful organization of mining engineers and mine managers in connection with the establishment of a Chamber of Mines. Either the original association should be re-organized, and objectionable features eliminated, or professional mining men of good standing should take steps in their own as well as in the interests of the public to create a more efficient society than at present exists. A properly conducted Chamber of Mines would have undoubtedly great influence in putting a stop to wild-catting of every description.

---

It is to be hoped that the Government will introduce legislation next session to prevent unqualified and incompetent individuals from styling themselves, and practising as, mining engineers. This is a matter of utmost importance and if both the public and the profession are to be protected, legislative measures must be enacted with as little delay as possible. It has been well pointed out that the statements of any man claiming rank as an officer in the army may at once be admitted or refuted by reference to the Army List, but in a case when the professional standing of a man such as a mining engineer more directly interests the public there is no such simple means at hand.

---

It will astonish a good many people to learn that pig-lead has been imported all the way from Australia to be manufactured into weights for the nets of the Fraser River fishermen. According to rule this should be an instance of carrying coals to Newcastle.

---

Those who are familiar with the scenery of Colorado will no doubt be somewhat astonished to discover a striking similarity between it and the Klondyke as portrayed lately in the English illustrated papers, wherein you will see depicted to life the rolling hills, the arid wastes, the characteristic herbage made familiar once before to outsiders when the Cripple Creek excitement was at its height. It is a strange coincidence, because the two countries are so wide apart. But then, of course, gold was found in Colorado; so it is in Klondyke. Nevertheless, an old imbecile of a prospector just returned from Klondyke, and who also had spent many years of his early life in the mining districts of the Western States, upon being shown the other day a view of "Placer Mining on Eldorado Creek," in the London Illustrated, remarked delightedly, "Well, I'll be durned, if that ain't my old shack near Denver, an' they've just missed puttin in the stamp mill!" But Klondyke had quite obviously affected his mind.

Speaking on the question of a route to Yukon *via* Calgary and Edmonton, Mr. Sifton is reported in the Calgary Daily *Herald* to have said: "It is quite clear to my mind that nothing could be more fortunate than that we should be able to send every prospector bound for the Yukon through Alberta. It would be the very best way of settling up the country. It is in this way, in fact, that large districts have been populated in the States—by the droppings off from the influx of miners." This is precisely the stand we have taken already in the *Record* with regard to the desirability of the proposed Kamloops and Ashcroft routes. It would be a very much better thing for the country, a very much better thing for the gold-seekers themselves, if a large number next spring decided to start from inland points instead of from Victoria and Vancouver, for the very reasons put forward by the Minister of the Interior. These assertions will not, perhaps, prove acceptable in certain quarters, and coast merchants may protest strongly thereanent, but there is really no reason why they should. It is perfectly obvious that, if the estimates of the number of people preparing to participate in next year's rush are not entirely erroneous, neither Vancouver nor Victoria will be in a position to meet the enormous demand that will be made upon the out-fitting houses, and it should be granted on economic principles that it is preferable to profit by a trade that does not overtax our resources than to lose prestige and future custom by, after inviting people to come and buy at our shop, telling them when they accept that the stock is exhausted.

---

Western Australia is now to have a mint, a fact which naturally suggests, why not also Canada, a vaster and infinitely wealthier country, which will very soon leave Western Australia far behind in gold production, whilst also yielding vast quantities of silver, nickel and copper, all metals available—even under monometallism—for subsidiary "small change" coinage?" The great banks of Canada, of course, object, for the paper issuance facilities afforded them yield big profits, on which their managers are loath to permit encroachment, even at the hands of the state. The Canadian banks are, however, in this case prejudiced judges, and to expect them to advocate full and free gold minting by the Dominion is to ask too much of their human nature.

Meanwhile, it can scarce be doubted, if our national case be noted carefully by the unprejudiced observer, that the large use of "paper money,"—even for small change—has a direct tendency to inflate credit to an at times dangerous degree. Far too much credit is, partly as a result of this, given throughout Canada to untrustworthy persons, on the strength of bills and notes, often purely "accommodation" acceptances and for big losses frequently caused, the sol-

vent trader and consumer has in the end to compensate banks, merchants and other losses by bills and notes discounted. It is also certain that, were Canada possessed of a gold coinage of her own, as also of a larger silver coinage in part superseding small bills of one or two dollars, we should hear less than we do of the advocacy of the "fiat" money heresy, which causes multitudes of electors on this Continent to believe that the State has only to get a printing press, ink and paper and issue money bills to an unlimited extent on the national credit, in order to create great wealth for the community and to make almost everybody happy. There is already far too much credit "paper" substitution for cash payments in this great and growing commercial country of ours. Why, too, should we remain dependent on Great Britain, the United States and Australia for our gold money? We boast ourselves a nation of the greatest empire in the world, yet are glad to take some of our gold coinage from a foreign mint and another part of it from a mint in a far away sister colony at the Antipodes.

While we are strongly opposed to the introduction of the sort of happy-go-lucky legislation—particularly when applied to the mining industry—which leaves a capacious loop-hole through which the careless or non-observant may easily crawl whenever it suits their convenience to do so, we have nevertheless long been of the opinion that the provincial mining regulations with regard to the forfeiture of a man's property simultaneously with the lapsing of his free miner's certificate might advantageously have been given rather more elasticity. We may, therefore, be allowed to express gratification that the somewhat harsh regulation of December 11th, 1896, has been repealed and that hereafter those who inadvertently fail to renew their licenses at the proper time may, by complying with certain requirements, obtain relief from the property forfeiture penalty. The conditions, however, by which this new enactment is hedged would appear to be adequately restrictive to guard against the abuse of the privilege afforded. There can be little doubt that this wise and timely move on the part of the Government will be most favourably received by prospectors and the mining community generally of the province.

And yet another "London-British Columbia" fiasco. When in the name of all that is disgusting are they going to end? Not, we fear, until incalculable injury to the provincial mining industry has been accomplished. Well may those who have the interests of the province at heart in this country as well as the poor investor in England cry: "From all the wiles of the London promoter, from the reports of shoddy experts, from the evils of over-capitalization: Good

Lord, deliver us!" Still one can find it possible to pity unhappy Mr. Comisky, Chairman of the Vancouver and British Columbia General Exploration Company, Limited, who undoubtedly spent a *mauvais quatre d'heure* enough the other day in trying to explain to a captiously inclined audience of shareholders at an extraordinary general meeting in London the present unsatisfactory position of affairs with regard to the Galena Farm properties owned by the company. Well, Mr. Comisky explained; but whether the shareholders were satisfied with the explanation, we of course, cannot say, although there was an expression of opinion from one gentleman, who said he "considered the chairman's statement was a somewhat bald one."

Meanwhile it is not a little strange that Mr. Comisky's explanations in important particulars by no means tally with information we have lately received anent the Galena Farm claims from a trusty correspondent residing in the district wherein these properties are situated. Mr. Comisky, rather tentatively, perhaps, yet nevertheless leads one to suppose that the presence of zinc in the ore has only recently been discovered. "To attribute the failure to the presence of zinc," our correspondent writes, "is the merest bosh, because this was known from the very commencement." This is contradiction No. 1 to Mr. Comisky's assertions, and there are others.

Our correspondent goes on to say: "Candidly, the whole thing has been a gigantic farce from beginning to end, and moreover it was all done through the misleading reports of the experts. The claim (that is the Curry) was well worth the money paid for it, viz., twenty thousand dollars on a bond \* \* \* but it is absolutely hopeless to expect any kind of a dividend on a capital of nearly three million dollars. I may say that the mine is closed to visitors, at least they refused me permission to examine it, which is not a very hopeful sign." The plain English of it is that the shareholders now have to suffer for the sins of Mr. Callahan, M.E., who issued the "grossly misleading reports" aforesaid in the first place, and they may have the further satisfaction of knowing that although there is a possibility of the properties turning out fairly well yet the company's capitalization is so absurdly high that the chances of a dividend are of the remotest. As to Mr. Callahan, it would be difficult to say whether he is more knave or fool. We are not informed as to his right to style himself M.E., but if he had any professional training or qualification, so much the worse, for only one construction can then be put on his conduct. There is another matter in conjunction with this disgraceful affair to which we feel compelled to refer. We allude to Mr. Comisky's remarks anent the Provincial Mineralogist's report on the Galena Farm properties. While Mr. Carlyle spoke, it is true, favourably of the properties as *pros-*



pects. he distinctly mentioned that zinc here had already been a troublesome factor, and while describing what was in sight at the time of his visit, from the showings in a fifty-foot shaft, 130 feet of drifting and some surface cuts, nothing that he said could be construed into substantiating the most extravagant estimates made by the company's experts, but on the contrary would be much more likely to lead sensible investors to question whether with so little work done it could be possible for any expert, however lynx-eyed, to see so much ore in sight as Mr. Callahan presumably (?) saw. But apart from this, the point is, did or did not Mr. Carlyle recommend the excessive capitalization of the V. & C.G.E. Company, or was there anything in his report to justify it? Mr. Carlyle has a very difficult task in being called upon to report on every prospect in the province and it may be easily seen that unscrupulous promoters and company-mongers may take undue advantage of his words. We shall have more to say on this question later.

#### HOW REPORTS ARE WRITTEN AND PROSPECTUSES PREPARED.

##### QUEEN BESS PROPRIETARY COMPANY.

WITHIN the last twelve months some very remarkable documents purporting to relate to British Columbian mines have been issued to the investing public of Great Britain, notably the prospectuses of the Galena Mines, Ltd., the Gold Fields of British Columbia and the Waverley Mine, Ltd., but the most recent, that of the Queen Bess Proprietary Company, Ltd., is perhaps the most curious and interesting in its inconsistency and total indifference to facts, and in its unscientific use of the imagination.

The engineer's report gives the gross value of the ore proved in No. 1 vein as follows:—

Below the fourth tunnel . . . . .	\$ 45,000
Between the fourth and third tunnels . . . . .	103,500
Between the third and second tunnels . . . . .	105,000

Or a total of . . . . . \$253,500

Then, as if he had some doubt about the accuracy of his figures, he goes on to say, "Vein No. 1 in all, on a most conservative valuation, gives a value of \$220,000 and an enormous speculative value into the bargain." It would thus appear that \$33,500 (note the 500) of the above total is only a speculative value, and if the opinion of the previous owners can be correct, probably another \$200,000 ought to be relegated to that category.

The prospectus says, "\$473,500 worth of high grade ore is actually in sight in the tunnels of the Queen Bess claim alone."

These figures, it will be noticed, are got by adding together \$253,500 and \$220,000, each of which sums the engineer, in different parts of his report, puts forward as being the total gross value of the ore proved. Which is right? the engineer's report, the prospectus, or either of them?

The plan accompanying the engineer's report shows unmistakably that a large part of the ore thus

estimated is from the Young Dominion claim. The prospectus cannot therefore be quite accurate in saying that the whole of it was from "the Queen Bess claim alone."

The prospectus further says that the promoters, "who are selling at a profit, have fixed the purchase price at £85,000 which is less than the estimated value of the ore actually in sight." Eighty-five thousand pounds is equal to \$413,950, but the engineer's report hesitates as to whether the total gross value of the ore proved is \$220,000 (£45,174) or \$253,500 (£52,053). Here, again, it may be asked which is right, the prospectus or the engineer's report?

In another part of the prospectus it is stated "that mines similarly placed in the same district, working the same kind of ore, some of them owning less property, have turned out extremely lucrative. Amongst these may be mentioned the Idaho-Cumberland, which was recently sold for \$400,000, and from which since its sale \$500,000 worth of ore has been taken out." Both these statements—according to the present owners—are gross exaggerations, the latter sum being the truth multiplied by about ten only.

By way of recommending the investment to the public the following extract from the Official Report of the Provincial Mineralogist is published in the prospectus: "At no time in the history of the district have so many mines had high grade ore exposed." (Note the statement: it refers only to the quality of the ore, and says nothing about the quantity). "And of such mines can be named, among others, the Slo-can Star, Ruth, Wonderful, Monitor, Idaho, Alamo, Cumberland, Ivanhoe, Queen Bess, Payne Group, Whitewater, Wellington, etc." Here the quotation stops. The complete list of mines named by the Provincial Mineralogist includes, among others, Galena Farm, Two Friends and the Bondholder. Why these mines were not included in the Queen Bess prospectus list may not be apparent to the British public, but British Columbians know.

The writer of the article on "Experts" in last month's number of the MINING RECORD might have extended his observations with advantage so as to notice a most reprehensible practice followed by some engineers of reporting for a commission on the selling price. No wonder the imagination of the corduroyed savant becomes lively under such a stimulus and that fact gives place to fiction in many of his masterly productions. Iago, in speaking of jealousy, says (according to the most probable version) "it doth make the meat it feeds on." The man whose commission depends upon the excellence (?) of his report may feel it his duty to produce something that is very excellent and for that purpose may make the facts he relies on.

When are we going to settle down to the real business of legitimate mining in British Columbia? Echo answers "when?"

TENDERFOOT.

#### WHAT IS GOING TO HAPPEN THEN?

IN the beginning of 1850 the total wealth of the world in gold was estimated at one thousand eight hundred and fifty million dollars. To-day this total is nearly four thousand five hundred millions. The production for the ten years, from 1877 to 1887, was one thousand millions; from 1887 to 1897, one thousand five hundred millions. This ratio is still increasing.

The production of 1897 will be somewhere near two hundred and fifty million dollars, of which South Africa will produce \$50,000 and British Columbia \$10,000,000.

The year 1900 will see a production of over three hundred million dollars. This seems to open up a very interesting question for the thoughtful mind. Every year fresh fields are being discovered. The Siberian placers and mines will have their production largely increased by the construction of the Trans-Siberian Railway. We have lately heard of the opening up of probably long-known gold fields in Manchuria—Klondyke we have already with us. The Antarctic with its immense area under present volcanic influence will possibly come into line. The islands of the East Indies when their climatological conditions are better understood will be opened. Taking these facts in conjunction with the rapid strides made in the mechanical and chemical methods of extracting gold from its ores, it will be seen that in the near future we shall have to face a very critical problem.

Of this immense production of gold we must look forward to a very great proportion falling into the hands of the capitalist. The days of the poor man's country, though Klondyke is yet to the fore, are to a great extent numbered. Gold extracted from gravels does not probably total to more than thirty-five per cent. of the world's production, including Siberia, and is not likely to increase in ratio.

(To be Continued.)

#### NOTES.

**M**R. CARMICHAEL, the Provincial Assayer, is expected to return to the province early next month. The course of lectures on the mineral resources of British Columbia delivered by him in the Old Country have attracted much attention.

Mr. W. Blakeman, M.E., the prominent coal expert of Glace Bay, C.B., has been appointed superintendent of the Kootenay Coal Company. The Company is to be congratulated.

Imitation is said to be the sincerest form of flattery. The Legislature of Nova Scotia intend to emulate the example of the British Columbia Government and appoint a Provincial Mineralogist. They, however, have experienced a difficulty in finding a man as well qualified to fill the post as Mr. Carlyle.

#### NOTICE TO NON-SUBSCRIBERS.

**T**HE editor of this journal is, of course, a philanthropist; otherwise he would not occupy the position he does. It is a difficult character to sustain at times nevertheless, and the public, or that part of the public whose names do not appear on the subscription list of the MINING RECORD should really begin to recognize the fact. Non-subscribers will please note that in future when requesting the RECORD to send to their addresses catalogues of mining machinery, back numbers of New York or San Francisco mining papers, samples of British Columbia ores, or other miscellaneous articles they will be required to furnish their own packing cases and postage stamps. In token, however, of the unbounded admiration we cannot but feel at the unparalleled impudence displayed by correspondents of a certain type, with each order for 100 catalogues or for 100 pounds of ore specimens, we will supply free of charge a copy of the Seattle *Post-Intelligencer* containing the alleged

interview with Mr. Milne, Collector of Customs at Victoria, on the subject of the Yukon prospectors' duty exemption. Because that is at present the cheekiest thing on record.

#### TOPICS FOR THE MONTH.

(By our Mainland Correspondent.)

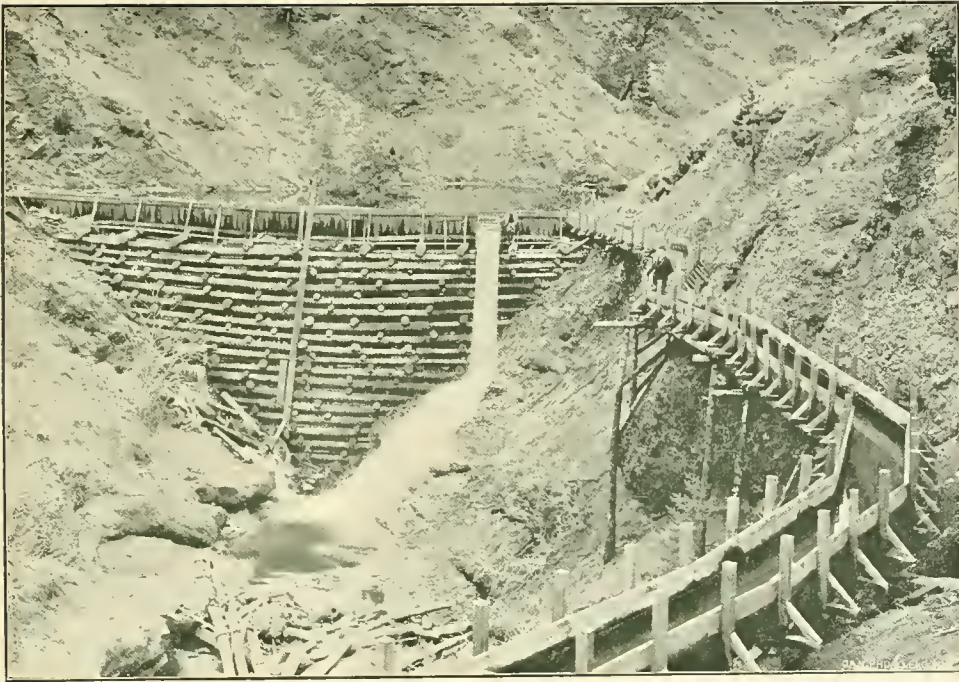
**I**T seems likely that there will shortly arise a strong demand on the part of organized mine owners to secure either by Truck Act legislation, or by trade society combination and consequent strike or strike threatening effort, the abolition of a widely prevalent system, under which mine owners board their employees and make the cost of the board a deduction from wages. The acceptance of the boarding arrangement on the mine owner's terms is usually in such cases an essential condition of the hiring agreement and thus made practically compulsory.

There are already threatenings of this labour dispute in the Rossland district, where the local branch of the International Typographical Union is actively combatting a like arrangement, sought to be enforced by the proprietor of the *Rossland Record*, and seeking to make its example a precedent for like action on the part of miners, now compelled to board on mine premises, either within or hard by the city. There is no doubt that in some cases the cost of such miners' board is made to yield an undue profit to mine owners and practically used as a means of reducing the monthly wage bill by the deduction of such board. There are instances, also, where the proximity of a mine to a good supply city renders the compulsory boarding of employees at a mine unnecessary. But it is a convenience, amounting to absolute necessity in cases of isolated mines, logging camps and other industrial establishments in such a country as British Columbia, for employers to provide board for their men and deduct a reasonable sum therefor from their wages. It would have been impolitic to pass and impossible to enforce Truck Act legislation in this country, on lines like those of the legislation of the United Kingdom, which in general prohibits payment of wages in kind by employers. It would rather appear that each case of board requirement and deduction of its cost from workers' wages, should be considered on its merits by workers and their trade organizations, though it is possible that some legislation might be attempted to prevent flagrant and general abuse of the "truck" system.

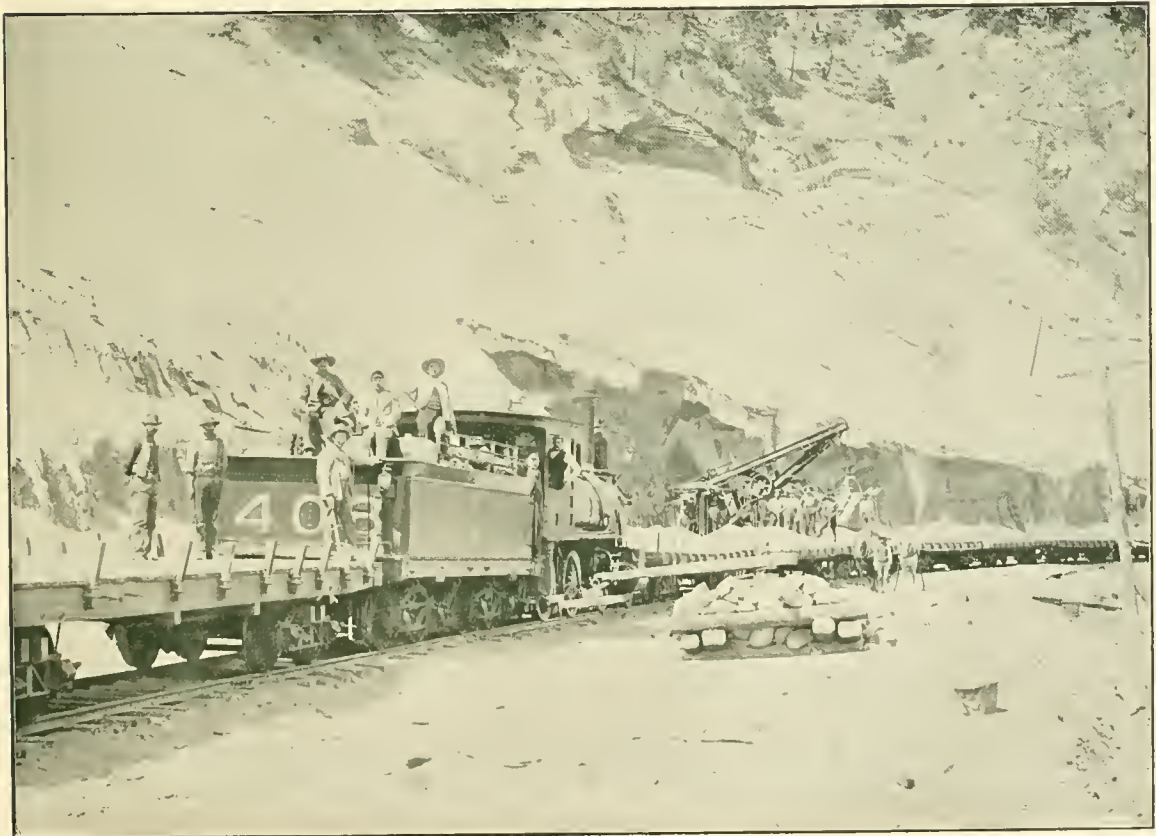
The sooner a smelter and refinery of moderate proportions are together established and worked, as proposed, on Burrard Inlet the better, as it is certain that the absence of such facilities, cheaply attainable by water carriage is greatly retarding and in some cases absolutely preventing the development of copper, gold and other mines on the Mainland Coast which possess ore deposits of low or middle grade.

Mr. Ernest Grant-Govan surely made a most undesirably hazardous because ultra sanguine estimate of the Waverley mine's profits possibilities when he told the English shareholders of the company that this fairly promising silver mine of the Illecillewaet could next year and for several years thereafter, yield a profit of £10 a ton per week on an output of 1,000 tons. This makes an estimated profit of £520,000 a year, or a return equal to that of some five Le Rois. The Waverley seems likely to prove a productive and fairly profitable mine, though this cannot be inferred with absolute certainty from present





TRANQUILLE HYDRAULIC GOLD MINES.



STEAM SHOVEL AT WORK IN FRASER CANYON.





Samples selected by the manager of the smelter from the gray copper gave a return of \$342, the value of which was made up of silver, 265 ounces; gold, 68-10 ounces; and copper, 35 per cent. The following are the assays obtained from the different ores found on the property and from samples selected with a view to giving results which might be expected in the actual working of the property without regard to picked specimens. The proprietors of the mine are certainly to be congratulated on having obtained such results:—

“Boston” and “Bennison” claims, known as the  
Bennison Group, from the N.W.

Open Cut, 150 feet below summit.  
Boston Tunnel, 250 feet below summit.  
Bennison Tunnel, 1,000 feet below summit.

Summit of Mountain.

400 ft.

200 ft.

150 ft.

B O

S T

O N

S

N I

O N

C L

C L A

I M

Galena-2½-ft. wide.

White Quartz-12-ft. wide.

Yellow Quartz-8-ft. wide.

White Quartz-1-ft. wide.

Bennison vein-7-ft. wide-Quartz, Galena, Gray Copper.

Red Quartz-6-ft. Wide.

Boston Main Vein-12-ft. wide-Red Quartz.

1,000-ft. level.

Galena, Gray Copper.

2½-ft. wide

White Quartz

Red Quartz-3-ft. wide-

250-ft. level

Red Quartz-4-ft. wide-Galena, Gray Copper.

Boundary.

ASSAYS FROM BOSTON CLAIM.

CLASS OF ORE.	Gold. oz.	Silver, oz.	Lead, per ct.	Copper per ct.
Gray Copper.....	1	284	.....	40
Gray Copper.....	6.83	265 8-10	.....	35
Mixed ore, Galena and Gray Copper.....	84-100	94	44½	6
General sample of ore, without any assort- ing from five tons.....	32-100	45	58½	4½
Galena.....	55-100	125½	57 7-10	.....
Galena.....	68-100	69	54	.....
Galena.....	.....	15	33 6-10	.....
Galena.....	.....	45	82½	.....
Quartz and Galena assorted, in same sample	1 60-100	135	58½	.....
Quartz.....	2 15-100	.....	.....	.....
Quartz.....	25-100	1	.....	.....
Quartz.....	2 12-100	17	.....	.....
Quartz.....	1 44-100	4½	.....	.....

ASSAYS FROM BENNISON CLAIM.

Quartz.....	1 18-100	1 3-10	.....	2½
Quartz.....	2 30-100	2 7-10	.....	.....
Quartz.....	12-100	.....	.....	.....
Quartz.....	1 15-100	13 8-10	.....	.....
Gray Copper and Galena mixed	3½	181	60	25
Galena.....	18-100	40	67½	.....

The company have done an immense amount of work this season in the building of trails and in the development of the Bennison group. A tunnel has been driven at a point 150 feet below the open cut in the Boston, and 250 feet below where the big vein is exposed on the summit. This tunnel struck the vein after being driven a distance of ninety feet, and so perfect is the formation that a galena lead appearing in the open cut, at a distance of four feet from the main vein appears exactly in the same position at the 250 feet level. This vein is a red quartz, well mineralized with galena and gray copper, and has given so far as much as seven ounces in gold. The vein is twelve feet wide and can be traced from 500 to 600 feet on the surface east of the summit, so that it gives every evidence of being an immense body of rich ore. Another tunnel has been driven in the Bennison claim at a point 750 feet below the 250 feet level tunnel in the Boston. This tunnel has been driven over seventy feet and proves the ground to a depth of 1,000 feet below the summit. It is being run along the Bennison vein, which is a quartz lead seven feet wide carrying galena and gray copper. A winter camp has been put in at great expense and a contract let for driving this low level tunnel a distance of 500 feet. The tunnel has already cut a strong galena leader, indicating the probability of leaders being found shooting off from these veins throughout their length.

I herewith present a sketch of the Boston and Bennison claims from the northwest, showing the leads that are exposed on the surface, and it must be admitted that this is a remarkable showing. There are nine such veins and a strong leader within a width of 1,000 feet. Two of these veins are each twelve feet wide, one eight feet, one seven feet, one six feet, two of four feet each, and one of three feet, and two

of two and a-half feet each. The regularity with which they strike through the country rock, which they cut both in dip and strike is a noticeable feature, the strike of the veins being N. 15° W. and their dip 75° to E. The country rock is a talcose slate. On the big Boston vein there are already something like 70,000 tons of ore in sight. The company will be ready to start shipping operations in the spring, provided they can get transportation. The only outlet by which the mine can be worked is by the Beaver Valley, and a petition has been largely signed in Golden and Donald asking the Government to arrange to have this road opened in view of securing the addition of a shipping mine of such promise to the list of shippers in Kootenay. If the Government will do this work the company intend putting in a concentrator and building an aerial tramway at a cost of \$75,000 to \$100,000. The ore will go to Bear Creek Station on the C.P.R. for transportation to the smelter.

As showing the difficulties under which the company have had to labour, I know that it cost them \$70 to \$80 per ton to pack in their supplies this season owing to the long, round-about trail which is the only means of access. The timber required for tunnelling cost from \$18 to \$20 per cord, and for building the winter cabin the cost was \$2.50 to \$5.00 a stick. It therefore requires a stout heart and good prospects to warrant mining operations in a country where so many difficulties have to be contended with, but the company have carried on their work in an unostentatious way and the businesslike methods adopted by Major Clohecy have afforded an excellent example to those engaged in mining in this part of the country. The owners have taken up these claims and operated them as a *bona fide* investment and this has been a splendid feature of the company's undertaking in these days when so many make mining simply a buying and selling of claims, with perhaps no more than enough development to satisfy assessment requirements. Such work as has been done by the Kootenay Consolidated Company is invaluable, in that it has shown to an extent hitherto unknown the large bodies of ore carrying high values that are to be found in the northern section of East Kootenay. It is to be hoped that the result of this company's operations will be to exhibit to investors that this district offers just as good opportunities of investment as are to be had in any portion of British Columbia.

E. A. HAGEN.

#### NOTES ON CONCENTRATION.

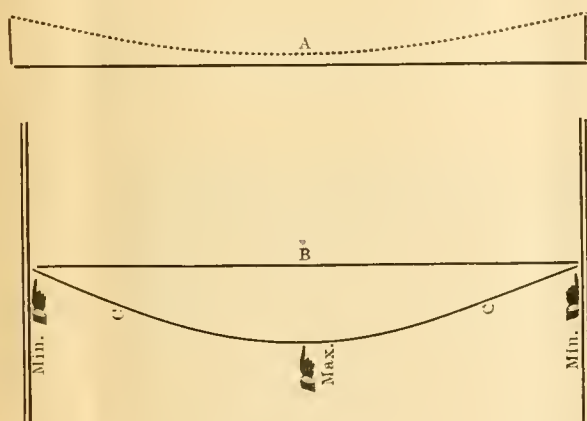
THE concentration of sulphurets such as gold-bearing iron pyrites and galena, when crushed fine, is one of the most difficult problems that present themselves to the practical concentrator man or millman. The usual and most successful machine relied on for saving these precious particles is the endless belt "concentrator" or "vanner," of which many different types are giving fairly good results. But it seems that the old and simple stationary canvas table yet is the most thorough and reliable "stand-by," as it can be found outside nearly every mill taking the tailings from the concentrators.

In the early days canvas or blankets were laid in the bottom of the lower end of the sluices for catching the fine gravel gold, and in the old stamp-mills the wood pulp would pass over the same kind of ma-



terial after leaving the amalgamating plates. Trying to save all the particles necessitated impractically long sluices, and the endless travelling belt of the modern concentrator was invented to overcome this. A twelve-foot long machine, it was thought, would be equal to an infinitely long sluice. This was soon found to be an illusion.

The endless belt travelling up hill, carrying with it the sulphurets, that due to a shaking motion of the machine, have been settled or precipitated upon its surface from the down hill flowing pulp, was found to work under great difficulties, owing to defective distribution of the pulp. In the machines having a side-shaking motion horizontally in a plane it was found that the pulp would gradually work towards the sides and lie in heavy sand banks along the edges of the belt, whereas in the middle the pulp would be very thin. The result is that the speed of the pulp down over the belt will be greater in the centre than at the sides along the edges. It is apparent that this makes it very difficult to regulate the up hill travel of the belt and impossible to save the sulphurets clean; for if the up hill speed of the belt be adjusted according to the down hill velocity of the pulp in the centre of the belt the edges will carry sand over the head of the machine, and if the up hill speed be adjusted according to the velocity of the pulp at the edges of the belt the middle part of the belt will loose sulphurets in the tailings.



Sketch A shows the cross section of a concentrator belt and the position of the pulp on a machine shaking sideways horizontally. Diagram B illustrates the down hill velocity of the pulp in different places on the belt. The curve C-C shows the increase of velocity from minimum at the sides to maximum in the middle where an abundance of water and the scarcity of sand will make a rapidly flowing thin pulp.

Aside from the difficulties of determining the up hill travel of the belt and saving the sulphurets clean, this banking causes a loss of sulphurets due to the impossibility of separating the precious particles from the too thick pulp. It also causes a loss of effective belt surface, as the parts of the belt (on a six-foot wide machine all the way from three to nine inches on each side) are covered up and totally incapacitated from work. In the end-shaking machine the phenomena observed are different and other difficulties are met with. Where there is no side motion of any kind the water has a tendency to separate from the sand and from channels running down hill between sand banks which makes the precipitation of the sul-

phurets extremely difficult. The end-shake being in the same direction as the flow of the pulp and travel of the belt makes the machine very sensitive and requires the operator's closest attention. For the accelerated velocity of the down hill flowing pulp due to an increase of battery water, or washing off the amalgamating plates, or a slight increase of the output of pulp will be intensified by the end-shake, consequently necessitating a very much increased up hill speed of the travelling belt to prevent the strong current from carrying sulphurets over the tail end. As such an increase cannot be made practical a great loss is sustained. On the other hand, a reduction of water, etc., will have the opposite effect and sand is carried in great quantities over the head end into the sulphurets box. Many ingenious devices have been invented to overcome these difficulties in both side and end-shaking concentrators, but very little improvement has been made.

Giving the side-shaking concentrator an additional rocking or tilting motion similar to that of a cradle was tried and found to somewhat overcome the difficulty of banking on the sides, but these machines could not be given the gentle motion that the concentrators whose shaking frames were supported on springs possessed, and the jar and tremble connected with their operation would more than destroy what was gained, and again the old canvas plant or sluices would have to do all the work left undone by the concentrators.

The writer has for years experimented with nearly all the different makes of concentrators that can be seen in the United States of America and has invented an improvement, for which letters patent have been granted both in the United States and Canada.

The machine is of the ordinary endless belt type bearing a side motion. The improvement is most simple and consists only of oppositely curved springs instead of straight ones as used on the old machines. In imparting a side motion to the belt frame the springs on one side will bend down while the other ones straighten up and *vice versa*. This gives in addition to the side motion a peculiar gentle drop of one side while the opposite will be lifted up. This motion has in common with the cradle motion a tendency to throw the pulp towards the centre, but just sufficiently so to prevent banking along the edges and gives a most perfect distribution of the pulp over the entire surface of the belt.

Thus we have the pulp of the same consistency evenly distributed and the down hill velocity of the current is the same at any point of the belt making it an easy matter to determine the up hill speed of the belt for saving clean sulphurets, also making it considerably easier for the concentrator man to determine the number of shakes per minute to be given. Pulp of a certain consistency demands a certain number of shakes to allow the sulphurets to precipitate. As there is no banking taking place the entire width of the belt is effective, which consequently increases the capacity of the machine.

Much time has been spent in getting up a distributing device that would spread the pulp evenly over the belts of the old side and end-shaking machines, but it is readily seen that it is the motion itself imparted to the machine that must distribute the pulp evenly, for if this be not right the most perfect distributing box is of little use.

Vancouver, B.C. JOHN O. NORBOM, E.M.

## THE LOCATION OF MINERAL CLAIMS.

IN a short conversation during the summer last past with the editor of the *Nelson Tribune*, I expressed my decided opinion that the law regulating the location of mineral claims in this province should be amended in this particular, that within sixty, or perhaps ninety days, after the staking of a claim a certain amount of work on this claim before it can be recorded, should be made imperative. I did not make this statement for publication but I am glad it has appeared if it will only assure discussion, but I was mis-stated in one point in that I did not then specify that the amount of work to be done should equal in value \$100, as this amount would be both excessive and prohibitive.

Having been over a large part of this province and met many mining men and prospectors to whom I have stated my opinion as above, I have yet to find one man who has not instantly agreed with me that such a requirement as I suggest should be enacted.

The mining laws of this province relating to mineral claims are simple and extremely liberal, but the attempt to limit the number of claims that one person may locate on a vein or deposit to one, was at once nullified when right to purchase (that could hardly be denied) was granted, for, provided with a sheaf of miner's licenses, an axe and a pencil, a man can stake out and locate as many claims as he feels disposed.

Under the present regulations it has been possible for a comparatively few men to effectually lock up great areas of valuable mineral land by simply putting up three stakes on each claim, which claims are sometimes recorded and very often not. That the annual assessment work required by law is not being done on a very large proportion of these claims is a notorious fact as this requirement is simply evaded by the now universal subterfuge of re-location of these claims in the names of other parties who at once deed them back by bill of sale to the locator. Thus from year to year thousands of acres of good land are being held on which not even search is being made for leads that might otherwise there be found.

In every district I have visited is heard this same complaint. It is a very common thing to find one man holding from ten to fifteen locations and quite often from twenty to forty. In the Trout Lake district I was told of one man who held seventy claims, and only during the past few days a man proudly told me that he held two hundred locations, or ten thousand acres of presumably mineral land. Many attempts have been made in other mining countries to overcome this very same difficulty, and some have adopted intricate and arbitrary laws that would not serve here. A simple yet absolute method is the best, and the best I believe, is the one suggested already. In Colorado for many years the prospector, after discovery, has had to sink a ten-foot hold on the vein or run a cut to expose a face ten feet high on the vein. In Montana this same amount has lately been required, while in California \$50 worth of work is stipulated to be done in a certain time before record.

Such a regulation here would at once open up a large extent of territory held by men on pure speculation who are only hoping in many cases to make a few dollars by their sale, and I know much good ground would then be carefully prospected by honest prospectors who to-day are being forced to leave most desirable districts because everywhere they are con-

fronted by stakes on claims many of which have never been recorded, but to ascertain which these men will not tramp many difficult miles to the Recorder's Office; and such men who would carefully look over the ground and work it if anything were found, simply move off to some other part probably to be again confronted by these ubiquitous stakes.

Among the mountains we have two classes of men. The first is the true prospector who zealously and laboriously tramps the trackless ranges often entirely alone for weeks enduring much hardship and fatigue, the intrepid pioneers. These men, when they have made a discovery, are ready and willing to work, to develop and determine what they have found, do work that is the foundation of the mining industry, and to such the law should extend help and absolute protection.

But there is a second and a large class of men who wait around the mining towns and camps and as soon as a discovery is noised about, stampede to that point and stake off claims in every direction, utterly regardless of the requirements of "mineral in place," often staking off claims with deep snow covering the ground. Thus, as can be pointed out at many places, the country for miles about a promising location, is quickly staked off, after which these men return to town and await developments with little or no intention of doing any further work themselves or perhaps as is often the case, only the small amount of work they perjure themselves by swearing as being worth \$100 as required by law.

That this condition of affairs exists throughout the province cannot be gainsaid, that it is checking in a very serious manner the development of mining districts I have not a doubt, and for this reason have taken this liberty of advancing the opinion that this promiscuous and unlawful staking of claims should be stopped, for, if this work before recording is exacted, ground will be far more carefully prospected before being staked and the genuine prospector will have a much fairer opportunity. Another phase that may be mentioned is that would-be buyers of ground (they suspect to be good by its location) are at once faced by the alternative of either paying, in many instances, excessive prices, for claims on which nothing has been done, or for the privilege of doing so, or must leave in disgust. It must be remembered that our mineral claims have a most generous area and that with areas over a quarter of a mile square, held by merely putting up these stakes and blazing a line between them, a large extent of maybe valuable land can soon be effectually but determinedly tied up. Again, no man betters himself by holding a large number of claims unless he has the means to carefully prospect each of them, but as is often the case, many locators possess little more than their grub-stake, and hence are simply unable to do justice to their numerous properties, being far worse off than if they would bend all their energies and expend all their means in developing as far as possible, at the most, not more than two or three locations, proving to a certain extent their true value. Such claims, if possessing merit, can now be sold with little trouble, if the buyer has the advantage of a certain amount of underground work to aid him in arriving at a clearer judgment of the conditions as they exist, for as it is, at present, the constant complaint of the many men seeking good properties, is this very lack of work and the prospectors are the sufferers, for they





N. & S. RY., CARPENTER CREEK CANYON, SLOCAN, B.C.



STEAMER "KOKANEE" ON KOOTENAY LAKE, KASLO, B.C.





can but seldom sell their prospects or not at prices they might easily command had they concentrated their work and not frittered it over more claims than they could manage.

Some will contend that this work will be too great a hardship considering the heavy country that is being prospected, but it cannot equal the hardship now being felt under the present greedy grabbing up of so much land by a few. Most experienced prospectors have been accustomed to do this work.

The old objection to the case of locations being made late in the season when such work could only be done under the greatest difficulty, will, of course, be advanced, but old hands will know this is an objection more in words than in fact, and very seldom would such an extreme case occur.

Making this work compulsory within a certain time before recording is, I believe, the simplest and most efficacious plan devised, for if a subsequent prospector finding stakes, finds no work done within the proper time, he knows the land is open to location, and again the pernicious method of re-location to avoid assessment work, will be practically stopped when any such work done at discovery cannot be declared upon more than once.

Feeling strongly that some change is demanded to correct a very growing evil and that the remedy suggested is the simplest and the best, and one that will be at once agreed to by the large majority of mining men and prospectors in the province, I have not hesitated to state more clearly my opinions than have already, but inadvertently, appeared in part in the press.

W. A. CARLYLE.

#### BRITISH COLUMBIA'S RECENTLY APPOINTED LIEUTENANT-GOVERNOR AT HOME.

THE honour that has been conferred on the Hon. T. R. McInnes, the representative of New Westminster district in the House of Commons and Senate for the last twenty years, is surely well-deserved, and as Lieutenant-Governor of a country that during his term of office will unquestionably take rank as the wealthiest and most important province of the Dominion he is eminently fitted to discharge the duties and maintain the dignity of this distinguished position.

One may, however, be allowed to express regret at the retirement of so stalwart a champion of popular measures as Dr. McInnes from the arena of active politics, albeit his successor in the Senate, Mr. Templeman, than whom no worthier man could have been chosen, has justly earned a reputation for ability and singleness of purpose and may well be entrusted to advocate those questions wherein British Columbia is so vitally interested—notably, that of the establishment of a Canadian mint.

Just previous to the public announcement of Dr. McInnes' appointment to the gubernatorial office, a representative of the MINING RECORD was afforded an opportunity of interviewing the Senator at his charming private residence on Michigan Street, Victoria. After discussing several matters of indifferent interest I introduced (writes our representative) the subject of a Canadian mint by asking my host how the matter had first claimed his attention. "Well," he said, "you know it is nearly twenty-four years since I came to the province and settled in New West-

minster, where a mint had been established, but owing to provincial jealousies allowed to be in operation only a few hours, consequently our gold continued to be shipped as formerly to San Francisco. These facts appealed to me, and I asked myself why we should not have a national mint. So when I was elected to represent New Westminster district at Ottawa I seized the first opportunity to bring the question up. My speech you published in the RECORD last June was the third effort I have put forward to impress Parliament with the importance of the matter, and I am not without hope that it will have the desired effect."

"You have had some intimation to that end, then?"

"Well, you can hardly call it that, but I received a letter from Sir Wilfrid Laurier, during his visit to London, complimenting me on the mass of information I had been able to bring to bear on the subject, and promising to confer with his colleagues upon his return regarding the advisability of acting upon my proposal, and I believe both the Premier and other members of the Cabinet strongly favour the institution of a mint."

"The compilation of facts and statistics must certainly have been very laborious work?" I suggested.

"Oh, it cost me a little trouble to get them from the officials, but I told them frankly that they might just as well do what I asked first as last and save me the trouble of moving in the House for the returns. But of course I was obliged to be very careful not to allow mistakes to occur in any of my statements, for if I had, I should have been jumped on at once, and one slip, however immaterial, would have condemned my whole argument, on the grounds that if I could be wrong in one thing I might also be wrong in another. However, no one as yet has been able to show me that I made a single mis-statement."

"Everybody in British Columbia, Senator, is anxious, naturally, to see a mint established, but how is the feeling elsewhere in Canada?"

"Indirectly, I can answer you by saying that the matter was discussed by Boards of Trade in different eastern cities, and that it was favourably considered in forty-three instances and unfavourably in one."

"Of course the banks oppose you?"

"If they do, it is because the question is not rightly understood. The establishment of a mint wouldn't hurt the banks. It would make very little difference to the circulation of notes of the larger denominations, and if silver change displaced the \$1.00 or \$2.00 bills which are issued by the Government, the banks would not suffer, would they? In fact, a prominent bank manager told me recently, that he could not get enough fifty-cent pieces to meet customers' demands for that coin, and it was a great inconvenience at times."

"Supposing a mint were established, it would necessitate the refining of our ores in the province, would it not?"

"Obviously, and this is a great consideration to my mind. The Slocan would produce the silver, and the lead from the rich galena ores, after desilverization would be converted into manufactured products and shipped from Canada direct to China and Japan or other markets, instead of as now, from the United States. Then, again, a large proportion of the Klondyke gold would remain in the country instead of being taken to San Francisco and sold to the mint there."

"Are we obliged to obtain the consent of Great Britain before establishing a mint, you ask? No, in this respect we have the advantage of the other colonies. According to the British North America Act Canada has a perfectly free hand, and why on earth there should be any hesitation in dealing with the matter I am at a loss to conceive. The cost of installing the necessary machinery for minting coin is comparatively small, and the profits—but I have spoken of all this time and time again. Perhaps the day will dawn when Canada will recognize her own greatness and her statesmen will rise to the occasion, and we shall show rather more national enterprise. Take, for instance, the question of government ownership of railways. Do we need greater proof than we already possess that this is a potent factor in promoting national prosperity? Here is a country of immense potentialities, a country whose commercial standing now is immeasurably higher than that of such states as of Italy, for example, yet in Italy the railways are owned by the Government.

"I see it stated, Senator, that the Provincial Administration intend spending \$50,000 in improving the Stickeen route. Should not this step have been taken long ago?"

"Possibly so, but it is clearly the duty of the Dominion and Provincial Governments to join hands in prosecuting this work. The trail, you must remember, while within the province, is for the benefit principally of Dominion and not provincial territory. However, I think we may rest assured that the Dominion Government will now do everything in their power to make this all-Canadian route the best possible, and it is only right that they should. I am very much opposed to the idea of allowing aliens in flocks into the Canadian Yukon at all. It is all very well to allow them to help us develop our quartz mines, but every ounce of gold taken out of the placer mines by foreigners is so much clear loss to the Dominion. The Americans have very sensibly recognized this in their own country, and you don't catch them permitting Canadians to go and mine their minerals. Not they."

Dr. McInnes is so entertaining a conversationalist that I had failed to notice that I had somewhat overstayed my visit and that I had completely forgotten to ask for the information I had intended to obtain—a sketch of the Senator's career. When, however, I suggested this, the Senator replied, with a twinkle in his eye. "Oh, never mind, copy the *Colonist's* account; that was near enough for practical purposes. I may tell you, though, that I am prouder of my proficiency with the rifle than of any other of my accomplishments, and I am proud of having been a member of the Senate rifle team. Some eight years ago, General ———, at one time Adjutant-General in British Columbia, conceived the plan of getting up rifle matches between the Senate and the Commons, and six men were chosen to represent each of the Houses. Well, the Commons rather laughed at the idea; they thought they were going to have it all their own way, because, you know, most of the members of the Senate are very old men. But to everybody's utter astonishment, the Senate won; we beat them, sir. So immediately after that a Parliamentary Rifle Association was formed, of which I have had the honour to be President up to the present time,

and we have had five contests with the Commons and it's something to say that we have been victorious every time. The last match, a year ago last summer, my baby boy was a member of the Commons team and we were opposed to one another. Well, it was rather an extraordinary coincidence that over the Queen's ranges we both scored precisely the same number of points—88 out of a possible 105."

Dr. McInnes may be proud of his shooting, but in the humble opinion of the present scribe he is very much more proud of his "baby boy," as he calls his talented son—the young but already distinguished member for Nanaimo.

#### A SHORT CUT TO YUKON.

ALL information tending to prove the greater accessibility of the gold regions of the Yukon is particularly valuable, and it is therefore with much pleasure that we are able to publish on reliable authority the news that the all-Canadian route *via* the Stickeen River has, by a recent discovery, been considerably shortened. It has been proved that instead of following the Dease Lake (or the old Cassiar) trail, a cut-off can be made by proceeding up the Telegraph Creek trail to the Hootalinqua and following that river to the Hudson's Bay post at Agnell's Mountain, thence along the Shesli River on the ice to the main Taku River. Continuing along the Taku north, a branch of the Nahlin River is reached. From this point five miles land travel is all that intervenes between the headwaters of the Teslin Lake, which, of course, is practically the headwaters of the Yukon River. This route reduces the total distance from Telegraph Creek to Teslin Lake to one hundred and thirty miles, as follows:—

	Miles.
Telegraph Creek to Hudson's Bay Post.	40
Hudson's Bay Post to Shesli River . . . .	60
Taku to Nahlin River . . . . .	25
Portage . . . . .	5
Total . . . . .	130

This is mostly ice travel, and from information furnished us we believe it will be found to be the best available winter route.

#### CANADIAN MINING INVESTORS.

THAT the expression of Barnum "a sucker is born every minute" is not applicable to Canada is becoming more evident every day. Canadians have bought and paid for the experience gained from unscrupulous American promoters of mining companies and they are likely to profit by it, by leaving mining companies and stocks severely alone, until such time as laws are enacted affording a greater increase of protection to investors.

That mining in British Columbia, under honest and capable management, is a legitimate and profitable investment, either for companies or individuals, is beyond doubt. Never in the history of mining was there such opportunities as are to be had at present (for those who really mean business and have available capital) in the district of West Kootenay.

Since the recent slump in silver properties that will no doubt make mines, and which were formerly held at fabulously high figures, can now be had on very reasonable terms. A fortune now awaits those who have available capital and have not lost their



heads over Klondyke, where climate and travelling are so unfavourable and results uncertain.

The richness and extent of the mineral deposits in British Columbia are attracting the attention of the civilized world and shrewd business men are beginning to realize that there is no more risk in legitimate mining than there is in any ordinary commercial enterprise and if the same business privileges were adopted the failures would be fewer than in any other line of business.

The majority of failures among mining companies were due to want of capital to explore their properties, their stocks being issued paid up, leaving no funds in the treasury. The other failures were merely stocking schemes, the main object being to dispose of promoters' shares.

If the Companies Act was amended, on the lines of the Banking Act, requiring a certain portion of the capital, say ten per cent., to be paid to the Registrar, to be handed back to the company with their charter, as their working capital; and if directors were required to own a reasonable amount of stock, upon which the required ten per cent. had been paid in cash, thus preventing the purchasing of influential names with no cash at stake behind them, the effect would be beneficial.

Companies should also be obliged to own their property and place not less than one-third of the capital stock in the treasury unless it is to be a close corporation and "treasury stock" should be stamped legibly and printed in different coloured ink on script so as to prevent the unloading of promoters' stock.

I think if such conditions were embodied in our laws so as to protect investors in stocks, confidence in legitimate mining would soon be restored, as the public could then see by glancing at the certificate the amount available for development, and whether it was treasury or promoters' stock.

There is still available in Canada hundreds of thousands of dollars for *bona fide* mining in British Columbia, but not for companies with empty treasuries and with nine-tenths of their stock divided among promoters.

GEO. D. SCOTT.

#### THE COAST AND KOOTENAY.

*Mendico ne parentes quidem amici sunt.* This is apparently the position of the unfortunate Coast-Kootenay Railway project, which now, so far as the Coast public is concerned, must needs go a-begging for want of support. In this sudden Klondyke excitement Victorians seem to have forgotten all about the enthusiastic public meetings held under civic auspices not twelve months ago, of the arguments then advanced for the building of a "People's Railroad," of the petitions, agitations, press articles, all to advance this scheme. For when a Minister of the Federal Cabinet, burning with honest zeal to learn the special needs of British Columbia, visits the province, and is presented by the British Columbia Board of Trade with an address, almost every conceivable "want" is mentioned therein, with the exception that is, however, of vital importance if Victoria's future commercial prosperity and standing is to be considered.

During the continuation of next season's rush Yukonwards, and perhaps for a longer period, the Coast cities will enjoy in full measure the commercial

advantages accruing. But directly the permanence of the new fields is assured and quartz mining operations follow ground sluicing, the establishment of railway communication facilities by direct inland route may positively be counted on. What will become of the Coast cities' Yukon trade then? Make hay while the sun shines is a good axiom. There is another well worth remembering, having reference to providing for the morrow.

Spokane, not long ago an obscure and humble village in the State of Washington, is now an important and wealthy city owing its present prosperity entirely to the developments in West Kootenay, while neither Vancouver nor Victoria have materially benefited. This is perhaps partly due to the greater advantages enjoyed by Spokane in regard to situation, but the lethargy of the merchants of the British Columbia towns is no less blameable. But if Kootenay has afforded a profitable arena for commercial enterprise heretofore, it is impossible to over-estimate what its future importance will be in this respect. During the past twelve months the progress has been remarkable, and it may be said the year has witnessed the establishment of the West Kootenay mining industry on a firm and flourishing basis.

Meanwhile the area of profitable mining is gradually widening and people are only beginning to realize the inexhaustible resources of the older camps and to form some conception of the rich potentialities of more recently discovered districts. In the next few years the increase of population in Kootenay will be enormous and its prosperity proportionate. But the time has now arrived when every effort should be put forward to secure direct rail connection between the Coast and the great mining centres of the Interior and it is a matter of astonishment to us that even the Yukon excitement should have distracted attention from this important issue.

#### THE TENDERFOOT IN YUKON.

THE inexperienced "Gold Fever Child" (another term for tenderfoot miner) is often "greener" than he is generally pictured, writes a correspondent from Skagway, but the crass ignorance of the average young adventurer is almost incredible. In proof of which statements I send you the following yarns. They are perfectly true, please believe, and are submitted merely as samples:

I was sitting down on the trail about fifteen miles from the sea coast. A pack had slipped off one of the animals belonging to a party of tenderfeet on ahead and the trail was consequently blocked. A very dirty but nice young man who evidently had been accustomed to ask once upon a time, "What's the next article, madame?" before he started on this lay, came and sat down near me, resting meanwhile his pack, which did not look a light one, against a sloping rock. We got into conversation as people do on the trail, and he told me how deceived he had been by the false reports circulated back east anent the excellence of this particular trail, and he reminisced of the happy days he had spent behind his counter. My appearance evidently inspired this child with confidence, for he thrust his hand into his hip pocket and produced a piece of crumpled-up paper which he hurriedly opened and thrust under my nose to my no small surprise, and in a breathless voice exclaimed: "What is it?" I looked; a yellow substance had been wrapped in the paper and I said: "Where did you find it?" He said:



"Never mind; what is it?" I said: "Tell me where you found it and I will inform you." By this time the pack on ahead had been adjusted. Snatching the paper and its contents from me, with a malignant glare, the guileless child rushed on ahead. It was MICA.

The other little incident happened on the summit one night in August last. I had found shelter in a tent belonging to some men I knew and had spread my blankets under its hospitable roof. Most of the party were tenderfeet, but a certain old-timer was curled up in his blankets, smoking gently in a corner near the stove. The conversation got upon the advantages of concentrated food, and one of the party was describing how he had bought evaporated apples, potatoes, prunes, apricots and peaches; he said that he had also tried to get evaporated eggs, but that the store he went to did not keep them, unfortunately. The old-timer raised his head and remarked kindly: "I say, young man, you have forgotten to get a most necessary article of outfit, and I am sorry for you." "What is it?" asked the youth. "Why, evaporated blankets," replied the old-timer. "I never heard of them," said the youth, "how do they work, please?" "Quite simply," said the old-timer. "You can buy them for a dollar or so at any store. They are about as big as a pocket handkerchief and you can easily carry a couple in your pockets. When night comes on and you want to use them, you just dip them in water and they swell and stretch out to the ordinary size of a blanket. You lay them down and wrap yourself up in them and have a fine old sleep. Then next morning when you get up you just hang them in front of the fire and they shrink back to the pocket handkerchief size, and you pouch them and go on your way."

There was silence for a bit. Then the youth asked "Could you tell me, please, where I could get some from?" The only answer was a snore from the old-timer, and the youth has not been able to find the shop yet, I believe, as the old-timer had left before the youth awakened from his slumbers next morning.

#### ALBERNI AND WEST COAST.

ALTHOUGH it is characteristic of the whole of Vancouver Island that business enterprises should lie dormant during the spring and the early summer, it is in Alberni and district that this curious feature is perhaps most clearly to be observed, and in no season has this been so noticeable as during the present year.

During the whole of the remarkably fine spring and the greater part of the summer there was literally no mining of any importance being done in the district, and it was not until the autumn had showed signs of approach that the first signs of mining activity commenced to show themselves.

The reason for this unfortunate state of things, although of course very puzzling to the outside world, except on the assumption that the prospects were not of an encouraging nature, is by no means hard to find. The action taken by the E. & N. Railway people was well calculated to check even the most sanguine of men from making any effort to develop any property in which they had the greatest confidence, and to state that mining within the railroad belt was paralyzed is merely stating the simple truth.

Although the uncertainty as to the intention of the Railway Company still exists, it is understood that in some cases arrangements have been made under

which work has been resumed on several mineral claims, but as far as the general public is concerned it remains very much a question of buying a "pig in a poke," and no one seems to know what either the rights of the free miner or those of the Railway Company really are.

Of course it is possible that some day the E. & N. Railway magnates will awaken to the fact that the present state of things is not calculated to develop their property or enrich their coffers, and it is also just possible that the Government of the province of British Columbia may likewise realize that it is just as important that the resources of the Island shall be brought to the light of day as that charters of various descriptions shall be plentifully showered upon their faithful supporters—but these Utopian dreams are out of place in a mining journal.

A good deal of attention has been shown lately in the various prospects staked during the spring and summer in the West Coast mining district, and not a boat leaves Victoria without carrying several mining engineers who are sent to report on likely claims. If a small fraction of the prospects turn out to be as good as the surface indications manifest a great future is undoubtedly in store for this part of the province.

A great deal of inconvenience is caused on account of the necessity of recording claims situated north of Nootka at Nanaimo. The attention of the authorities must have been called to this, but at the time of writing the grievance still exists.

#### THE STICKEEN-TESLIN ROUTE.

OF the various routes proposed to reach the Yukon gold fields, that by Stickeen River, which by the Anglo-Russian treaty of 1825, is open to free navigation by British subjects; thence from the head of navigation on that river across the northern portion of Cassiar to Teslin Lake, which is the headwaters of one of the largest tributaries of the Yukon River, and navigable along its whole length, is conceded by general public consent to be the best route from the Pacific Ocean to the Yukon gold-bearing region. It has many advantages over the route by the Lynn Canal. It avoids the stormy, rugged, precipitous Coast Range. It is entirely through British territory, and thereby avoids complications, expense and delays with United States Customs. It is, in fact, as has been proved by examination and trial this past summer, the safest and easiest of all attempted routes. Besides, the distance is but very little longer than by Lynn Canal and Skagway. Prospectors and miners, moreover, all along the Stickeen-Teslin and Hootalinqua route can have the option of land where they choose, and examine the country as they proceed towards the interior, and along the Hootalinqua, the outlet of Teslin Lake, which for hundreds of miles connects with its gold-bearing confluent. It has also advantages for such as may wish to tarry in the country. It opens up the Cassiar mineral region, which also affords excellent grazing tracts of land, capable of producing cereals, edible roots and vegetables.

The Provincial Government has granted to the proposed Stickeen-Teslin Railway Company 5,120 acres of land along the route for each mile of railway constructed between Stickeen River and Teslin Lake, and as the railway is also a colonization company the Government, by a temporary reserve, has promised





SILVERTON, SLOCAN LAKE, B.C.



THE ENTRANCE TO THE RUTH TUNNEL, LONDON, B.C.





to protect the interests of the prospective settlers, to prevent speculative land-grabbers from taking and locking up the most desirable portions of land along the river and Teslin Lake.

Less than a year ago the Stickeen-Teslin route was not thought of. The country, except a few miles from Stickeen River and Dease Lake, was unexplored. It fell to my lot to bring it into notice by obtaining in December last the signatures of the principal merchants and business men of Victoria and Vancouver to a petition asking for an exploratory survey, and some assistance to locate an open trail. A deputation of the Board of Trade and leading men waited on the Government for that purpose. Later on the Legislature made an appropriation of \$2,000, which was expended without any exploration, and in a measure misappropriated. In May, 1897, I had an Act passed by the Legislature of British Columbia incorporating the Stickeen and Teslin Railway, Navigation and Colonization Company, with the land grant above mentioned to be located as therein designated. The Dominion Government appropriated \$6,000 to ascertain the best location for the railway and trail. They sent one of their surveyors to report on his explorations during the past summer. Railway engineers have also examined the route, and their reports are believed to be favourable. The prospect now is that the railway referred to across Cassiar will be well nigh completed by this time next year.

Such is the story of the Stickeen-Teslin route—the central line of travel from the Pacific to the Yukon region. Mr. Wm. Ogilvie, the Dominion Surveyor, who is the greatest authority alive on the Yukon gold-bearing country, computes that in the Hootalinqua and connecting streams east of the 141st meridian, there is sufficient gold to warrant an estimate of their output at from \$65,000,000 to \$75,000,000, as the gold-bearing region extends far up the Yukon and its branches. Mr. Ogilvie estimates that the area so indicated in the northern portion of the Dominion there is an auriferous region or area of between 100,000 and 150,000 square miles, with much country lying outside of it of great value. The estimate does not include the gold-bearing regions of British Columbia, which are proved to be very rich and extensive.

Victoria, B.C. ALEXANDER BEGG, C.C.

#### FROM ROSSLAND.

THERE is nothing this month to chronicle in the way of startling developments in our camp. With regard to the larger mines which figure in our shipping list things remain much as they were and much as they will remain until the transportation *cum* smelting difficulties are removed—or glazed over. The quidnuncs, always to the fore in this place, where the naked truth is ever indecorously clothed with the posters of rumour, now declare, apparently on the strength of a proposed meeting of shareholders of the Trail smelter to be held at the end of November, that the War Eagle people are about to purchase Heinze's smelting *impedimenta*. He then freed of a concern, which in one breath, is capable of treating all Rossland, Slocan and Boundary ores; and, in the next, must inevitably succumb to the Nemesis of American railroad competition, which is to overwhelm the C.P.R. in the Kootenays, goes on triumphantly to overcome the Beaver Line's mon-

opoly by establishing one of his own between this place and Pentteton.

As the War Eagle, together with the Iron Mask and Centre Star, lately openly offered the C.P.R. enough ore to justify the building of a smelter at Robson, and as the C.P.R. are actually at work between this and the last-named place, it would seem as if Dame Rumour was slightly exhilarated.

The Le Roi, while saying that there is no question as to its selling the mine, is the target for the gossip of London correspondents. One of these gentlemen lately went so far as to declare that he had actually seen the written offer of a London syndicate in which a definite price was named.

Capital is now certainly to be had a little more easily than during the past summer. The possessor of a really good thing will not find it difficult in this camp to get a fair price for his stake.

Of the smaller mines, and by this I mean merely those which have not as yet fully developed their potentialities, the subject of remark is the fact of their constantly growing numbers. The Deer Park has started up. The White Bear is soon to follow. The Homestake is still in abeyance, but the Lily May is prosecuting work vigorously.

The Silver Bell had intended to start work after its annual meeting. It has much work already carried out on the mine, which is situated on the south belt about two miles from the Red Mountain Railway. However, all the available funds from the sale of treasury stock has become practically exhausted so it has become necessary to lease the mine to Messrs. Harrington and Conolly, of Boston, U.S.A. This has actually been done, but has not as yet been ratified by the shareholders, who largely belong to Victoria and to Eastern Canada. No quorum was present. The absent shareholders were apparently of opinion that their supervision was not necessary. This is a mistake. Too much hole-and-corner work has already been done and where things are placed above board shareholders ought to lend their co-operation. All that is necessary is to have proxies in the hands of friends or well-known men in this camp. If it will in any way benefit your coast or eastern readers the subscriber is willing, being a shareholder himself, to hold proxies, under instruction, at the adjourned meeting.

After all, there are only two methods in which Rossland can properly be worked for its full value. Of the two, cheap smelting and cheap transportation, the former is a corollary of the latter.

Anent the first there is a proposition at present before the City Fathers that hath an ominous odour. One Thomas G. Elgie, who says that he represents somebody or another, which same is made to loom largely a spectre of the Brocken, desires to present Rossland with a cheap reduction works, to cost a million dollars. These are to be started immediately and are consequently to make the fortunes of all possessors of base ore claims. As far as the works are concerned, it is a business proposition for the inaugurators. Will it pay or not? Mr. Elgie avers that it will not pay unless the city makes him the proprietor of all its water rights, not for a term of years, but for eternity. That is to say, to allow Mr. Elgie, his representatives, heirs or assigns, to make a fortune at his or their little game; Rossland, even unto unborn generations to pay any price Thomas G. Elgie condescends to permit it to contribute for the very first



necessary of life. And we are none too flush of water here in Rossland. The promoter of this scheme may be indeed a very Nicodemus, a man without guile, but what must he think of the simple City Fathers of this newly incorporated town?

With regard to the other method, cheap transportation, beyond the chances of the already indicated supposed game of "cut-throat" euchre, necessarily understood of miners, *vide* Bret Harte, in which the War Eagle, Augustus Heinze and the Beaver Line are surmised to be enjoying; there, woefully be it written, seems to be little chance of the advent of a hero to cut the Gordian knot.

The Rossland *Miner*, speaking on behalf of Heinze, which it does, be it acknowledged, very consistently, in and out of season, scolds, like a very Katherine, in company with the Grand Forks local, a stray member of the Legislature, who recently declared that unless the railway promoters could build the Penticton line for the \$4,000 provincial plus the \$8,000 Dominion subsidy the Government ought to do the work itself. The position taken by these shrewds is that the money grant is not sufficient, that there should be more given. (Regular Oliver Twists!) If the Government is to put up more than half the necessary capital why should they not take more than half the profits?

Next it is declared that the Government has not the money. If the present Government is meant, why are Turner's and Henize's names bracketed by this backer of "private enterprise?" The assertion is baseless. Governmentally built railroads are no new thing. At the very least the Government should be in as good a position as the subsidy gluttons to command help from the Dominion. The sale of Crown lands among the beautiful and fertile valleys of the Kettle River ought in itself to be sufficient to feed the initial fund which could be set aside for the financing of the work.

But, triumphantly conclude the subsidy mongers, as the Government cannot, must not, do this thing; as that out-of-pocket public benefactor, Heinze, may not undertake the railroad unless he gets well paid to do it, therefore the C.P.R. will certainly get clear through to the coast and thereby establish a monopoly. That seems very dreadful. But why more dreadful than a monopoly run by somebody else? If a choice must be made, through the faincant policy of our rulers, of the two evils, let us place the yoke of the greater rather than that of the less upon our necks. The very vastness of the one, through its tremendous stake in the country, must consider, in some infinitesimal degree, our interests. The other, provincial and local in its scope, is in nowise bound to abate one cent of an extortionate usury.

ALFRED W. DYER.

#### FROM VANCOUVER.

VANCOUVER is at last following the example of Victoria in advertising the advantages of the Terminal City as a place of departure and point of outfitting for the Klondyke. The City Council will spend some \$1,500 in such advertisement, the bulk of the money being expended on the publication and circulation in Canada, Australia, the United Kingdom and the United States of 50,000 pamphlets stating the "case for Vancouver." The Board of Trade meanwhile expects to raise at least \$5,000 for similar

advertising purposes, by special subscriptions spread over a period of six months.

The general view of Vancouver men is that the possibilities of Yukon gold mining are much exaggerated, whilst the difficulties and dangers of the quest are minimized. It being, however, certain that, despite all warnings, several hundred thousand gold-seekers will make for Klondyke next spring, the traders of Vancouver conclude that as the two chief British Columbia cities are the best points for Klondyke departure and outfitting, they may with propriety help in making these facts better known to the world at large, instead of leaving the position to be misrepresented by the "boom" press of Seattle. The pamphlet which the Vancouver City Council is issuing quotes a portion of Mr. Ogilvie's lecture, which is preceded by a conservative summary of the Terminal City's opportunities for Yukon travellers.

There will be a keen and bitter fight at the coming Vancouver municipal elections over the grant or refusal of a liquor license to a music hall which it is proposed to establish in the city. Its advocates, who include many traders, hope that such a place of entertainment, duly licensed for the sale of wines, spirits, beer and tobacco, is absolutely necessary to attract to Vancouver as a place of residence miners and prospectors, who now go elsewhere. Opponents of the proposal condemn it on temperance grounds, and urge that it will be found practically impossible to conduct such an institution decently and decorously if equipped with a liquor license. Vancouver is naturally desirous of adding to her people a more considerable mining element, without which the population grows rather slowly. A civic census just taken places Vancouver's present fixed population at about 17,000.

The Findlay Syndicate, of Vancouver, has abandoned its option on the copper-gold claims at Lynn Creek, North Vancouver. Surface assays showed promising percentages of gold and large copper values but it is understood that the ore has not well stood further and fuller tests, being also found very refractory by reason of the presence of much zinc. The result is generally disappointing as many in Vancouver hoped for much from the Lynn Creek deposits.

The City Council's delay in passing and submitting the smelter and refinery by-law is, as your correspondent learns on good authority, seriously prejudicing the prospects of ratification of the by-law against which a strong body of what may be termed "middle-class" electoral opinion is steadily crystallizing. Vancouver's City Council of this year is becoming noted for its procrastination, its members are desperately afraid of taking action on any controversial issue and preferring, usually, above other things, the Yukon advertising, an exception rather parsimonious than wisely economical.

The Vancouver City Council is very slow in passing the necessary smelter and refinery bonus by-law, with a view to its necessary submission to the ratifying electorate. The publication of the city's Yukon pamphlet, of which fifty thousand will be circulated, is, however, being pressed forward by the Council and its literary representatives with all speed. Messrs. Cotton and Schou have the care of the descriptive matter in the pamphlet, whilst Mr. A. V. Stuart, Assistant City Engineer, has prepared for it a finely illustrated suggestive frontispiece and Mr. Grant, of



Vancouver, is responsible for the lithographical features. The pamphlet and its circulation will in all cost the city nearly \$1,400, but the money will be well spent.

Vancouver's City Solicitor, Mr. A. St. George Hamersley, has reported that there is no charter provision to enable the taking of a municipal plebiscite on the Music Hall Question. This is technically correct, but no one would enjoin the Council from expending a modest sum in taking such a plebiscite at the coming municipal election and such a course seems the only available method of deciding the issue. Most of the aldermen shrink from voting on so controversial a matter, as whatever way they incline, decision on their part means more or less loss of support at the coming municipal elections.

The Council should act boldly and brush aside Mr. Hamersley's correct, but purely technical objection to a plebiscite. The matter is germane to these "Notes" inasmuch as the main argument in favour of the establishment in Vancouver of a licensed music hall is the alleged need of such an institution to attract a mining population to a city which is in its numbers growing rather too slowly. Vancouver's fixed population does not yet exceed 17,000.

Mr. Walter Harvey, of Thurlow, and his co-owners have transferred to a Vancouver syndicate, headed and organized by Mr. R. D. Fetherston, the Annie Laurie group of gold claims on Phillips Arm. The properties are most convenient for cheap and easy shipment, being waterside claims by the sea. Development work will at once commence.

The claims of the Gold Fields of British Columbia, Limited, at Shoal Bay, are not yet being developed, but are held for future exploitation. The explanation is probably that they are not locally regarded as high grade propositions. The company should, however, be making money by its trading operations, for which there is ample scope.

The litigation in connection with the Golden Cache Gold Mining Company is the outcome of divergent interests in the company's undertakings, the Oldroyd-Mackinnon group of stockholders being on the one side, the Dominion Development Company, Dr. Carroll and others on the opposed one. It is decidedly to the interests of the latter not to permit the sale and transfer of the trust treasury stock. Hence their application to the Court. It is meanwhile freely asserted by those who should know, that the result of the crushings now proceeding will be considerably better returns than those from the first ore treated which yielded a value of \$10 a ton.

Public opinion in Vancouver in general endorses strongly the English press condemnation of the action of Provincial Ministers of State in lending their names and status to the directorate of highly speculative Klondyke and British Columbian companies.

The owners of the Golden Ears copper-gold mine at Pitt Lake are negotiating for the introduction of a considerable amount of eastern capital. Pending the securing of this, development work proceeds comparatively slowly as funds are short, the present owners, though New Westminster men of standing and good repute, having already invested most of their immediately available funds.

Nothing has till lately been heard for some time concerning the alleged valuable gold deposits in the Takust Harbour district. It is now stated, however, that an expert will shortly make an investigation of

these on behalf of the British Columbia Agency and other interested parties.

The mining stock market is in Vancouver temporarily all but dead, though there is an occasional desultory eastern demand for stocks. Most of the available money in town is apparently being devoted to the making of preparations either for Klondyke trading in the spring or for the fitting out or joining Klondyke expeditions. It is, however, expected that there will be some revival in the local stocks as soon as returns are available of the crushings at the Golden Cache and Tin Horn stamp mills at Lillooet and Fairview respectively, so, too, those at the Money Spinner mine on Fire Mountain, Harrison Lake, the only really developed property in that promising district. The latter returns will come in later than those of the Golden Cache and Tin Horn. Vancouver capital is considerably interested in all these ventures. The present anticipations of the Tin Horn people are believed to run high.

### JOTTINGS FROM CARIBOO.

IF we bunch together our items of good mining news and subtract them from those telling of hard luck and disappointment there is no denying that the balance left would still be formidable. Notwithstanding this those best fitted to judge pronounce that there is no cause for despondency regarding the future of this great district, and I herewith send you a few jottings in proof:

One prospector brought from Omineca and showed me a nugget worth over \$70. The Cariboo Gold Fields Company in digging their bed-rock drain find dirt going, according to estimate, \$8.00 to the cubic yard. From the Forks and Horsefly we have to add the hopeful facts mentioned in the RECORD for November. Last, and most important, the yield of Cariboo gold is increasing, not in proportion to the increased activity in mining affairs, but still increasing.

On the whole an impartial statement of how matters stand in Cariboo does not show up badly and a vast improvement is waiting only a change of conditions. At present we are unknown to the investing public outside mining circles. Those companies which up to the present have been floated to operate Cariboo mines are largely the result of personal influence or canvassing. It has been asserted in several journals recently that Cariboo is at length in public favour, but with deference to those opinions it is hardly the case. Unless we admit, which we do not, that Western Australia or South Africa are richer countries than our own, how does it come that enormous sums are readily invested in these gold fields while British Columbia is in a measure, and Cariboo wholly, ignored? Can any of the RECORD's readers tell the reason, locate the responsibility or advise a remedy?

MONS. MEG.

### FROM SLOCAN CITY.

SOME trouble has been met with in getting steel for the Slocan Valley branch of the C.P.R., but Captain Perry, engineer in charge of construction, thinks that it will be completed this week. There are only a little over four miles yet to lay. It is understood that the schedule has already been made out for the new branch, and it contemplates to make

a close connection with the Spokane Falls & Northern at Nelson and run a train through to Spokane from this city in one day. The trip now requires two days and a-half. The citizens of Slocan City are preparing to celebrate the arrival of the first train, a meeting having been called to arrange for the affair.

Mr. D. Mowat, chairman of the local Civic Commission, is in Regina attending the session of the North-West Territories Legislature of which he is a member. During the absence of Mr. Mowat, Mr. A. York has been chosen as chairman *pro tem*.

A number of the mines on Springer and tributaries of Lemon Creek are preparing to ship ore as soon as the raw-hiding season opens. There was a heavy fall of snow on the 8th and 9th, but it was too dry to be of practical service for this purpose.

The Arlington, at the head of Springer Creek, which has had its steam hoisting machinery in successful operation for the past two weeks, will probably head the list of shippers both in quantity and quality of its ore. In a drift here which is being run to get under the pay chute found on the surface the vein has widened from five to seven feet. Two feet of this is select shipping ore, but the balance of the seven feet samples 102 ounces silver and four and a-half per cent. lead. There are thirteen men working day and night shifts and the force will shortly be increased.

The Evening Star No. 8, on which a rich strike was made about six weeks ago, has been sold to a Winnipeg syndicate for \$50,000. This sale means much to the camp.

The Excelsior Group, which was recently placed with Massachusetts parties by Correll & Felt, is working nine men and will be operated all winter. They have just started a new shaft.

The original owners of the Chapleau have all their provisions up at the mine and are prepared to work all winter without shipping. The mine is located on a steep mountain side looking down into the first North Fork of Lemon Creek, and if it is found possible to make a trail from the mine to connect with the New Lemon Creek Trail and thus reach the siding of the C.P.R. at the mouth of the creek, shipments will be made regularly.

William Harrington has given a twenty-day option on the Get-there-Eli on Six-Mile Creek to Correll & Felt. The amount is \$20,000. When the property was examined it was found to make a better showing than Mr. Harrington represented and there is little doubt that the deal will go through.

The Howard Fraction has two ore sheds full of high grade ore, but Foreman Lawrentzen is unable to say whether this will be shipped or the storing facilities increased. This is the property in which Mr. Foster, ex-Minister of Finance, is interested. Mr. Foster stated during his recent visit here that the company would build reduction works in the spring and it was understood then that no more ore would be shipped. There are nine men working on the property.

A force of men are at work on the Cameronian Group sorting over a large amount of ore which has accumulated on the dump during the process of development. A trail has been built to connect with the Exchange Trail and thence to the main trail on Springer Creek, and it is the intention to make regular shipments during the winter. The Cameronian is regarded as one of the best mines in the district.

## SOME WEST KOOTENAY CAMPS.

ONE can hardly tell what will be the future of the Slocan. It is undoubtedly one of great promise, and for several reasons, the principal one being the variety of its ores and the extent of territory in which we find them.

I think, however, the term of Slocan must be restricted to that part of the country which includes, first, the mines around Sandon and Kaslo; second, those tributary to Slocan Lake and Slocan City as far south as Lemon creek. The mines around Slocan City will be dealt with last, as we have there a gold-silver belt. Apart from them, it can be said that the Slocan is essentially a silver country.

The mines around Sandon have so far been the best producers and dividend-payers in the whole of British Columbia. They seem to keep well up in value as greater depth is reached. The Slocan Star, is down over 600 feet, and it seems that the ore is as good as ever. There are now just around Sandon several big mines, and new ones are coming to the front every winter. It was only sixteen months ago when the Ruth was called "a good little mine"; now they call it a good "big one." One and a half years ago the Payne could not claim to be anything but a very promising prospect; to-day its owners have made more money out of it than have the Le-Roi stockholders.

The Last Chance is undoubtedly a mine. I have seen in its tunnels five feet of solid galena ore, running 180 oz. silver and 65 per cent. lead. Its owners contemplate shipping ore—1,000 tons—this winter. I look to a time when it will ship 30 tons or more a day.

Prospects to-day in the Slocan will be mines next year, and this happens sometimes quite unexpectedly. There are now three mines around Sandon that are shipping as much as 30 tons of ore a day, besides a number of small ones shipping a carload or so a week.

In a year hence the output around Sandon only will unquestionably reach the 300 ton mark per diem. It is an ideal country for economic mining, which is all carried on by means of tunnels, the ground besides being soft and easy to break.

There are very promising prospects tributary to Kaslo, on the several forks of Kaslo creek especially—I may say on the south fork of Kaslo creek—when better means of transportation are devised, it is safe to predict that the country then will prove to be just as rich as it is in the vicinity of Sandon.

Tributary to Slocan Lake we might mention Four-mile creek and Ten-mile creek. On these creeks are found most promising prospects, but more work must be done. Capital is badly needed, and good claims are lying idle instead of producing ore. There is no reason why there should not be a couple of shipping mines both on Four-mile and Ten-mile creeks. On Four-mile creek there are the Prescott, Vancouver and others which are now working, and of which much is expected. On Ten-mile is the celebrated Enterprise, a big mine now, and there is no reason why other equally promising prospects should not turn out as well as the Enterprise.

Tributary to Slocan City are Springer and Lemon creeks.

The properties here are mostly gold-silver. It is here where the most work will be done in the next year or so. People are making for gold, and this is just the country to suit them. There are prob-



lems in connection with this camp. One is a cheap milling process to extract both gold and silver, and I look to a time when we will hear stamps dropping in the deep canyons of Lemon creek.

R. GREEN.

#### REVELSTOKE.

MINING news is scarce round here just now, as there is little or nothing going on. In the Big Bend country work has ceased altogether, except on the Last Chance and Consolidation, both deep placer mines. There will be considerable activity up there next year. In fact, could supplies have been got in the London and B.C. Alliance Hydraulic would be working their claim at Ground Hog Basin all winter. A thorough test made of the Ole Bull has convinced the company, of which Mr. Seton-Kerr, M.P., of London, is president, and Mr. J. C. Ferguson, of Vancouver, local manager, of the value and permanency of the gold-bearing leads in the basin and they have taken the bonds up. They will be one good company working up there next season. Another will be the French Creek Co., who will work on some extensive gravel claims on French Creek with hydraulic machinery, which, after most heroic efforts, they have got packed and steamboated up there. They have a sawmill on their ground and 5,000 feet of a flume built and expect to commence hydraulicizing after spending about sixty days more in preliminary work next season.

Taking everything into consideration the chances are that North Kootenay will attract very considerable attention next year. Our exhibit at the Spokane Fair called forth a lot of favourable comment and will bring a good many mining men and investors from the Western States into our part of the world next season. Some entirely new districts have been prospected between Revelstoke and the Big Bend during the past season and indications of extraordinary extent and richness discovered. The leads are gold and copper and silver and lead. Next year there will be more prospecting done than ever and development will be begun, which it is hoped will prove the permanency of the surface indications already discovered.

There is very little doing in the Lardeau. The Horne-Payne Syndicate are working away at the Silver Cup, which property continues to improve under development, and is now shipping ore *via* Thompson's Landing to Argentina, Kansas.

The waggon road to the Waverley mine and other Grant-Govan properties up Albert Cañon is finished and the first shipment of ore from the Waverley packed out over it. The balance will be raw-hided. The accounts from the mines continue to be very bright and the company are obviously prepared to work them for all they are worth.

Mr. J. D. Graham, who has for the past couple of years filled the office of Gold Commissioner in Revelstoke, has resigned the position to take the appointment of local manager of the Grant-Govan properties, with head office in town here. The Horne-Payne people have also transferred their head office from the coast to this place. Revelstoke is waking up to the fact that it is time she was up and doing to help herself in the race for the trade of Kootenay and a petition praying the Legislature to grant her incorporation is being circulated.

G.

#### KAMLOOPS.

KAMLOOPS TO KLONDYKE—THE SHYSTER CLAIM-BONDER.

NOTWITHSTANDING the lull in mining matters here lately new claims are constantly being recorded, showing that the prospector is busy though he is working more quietly than a twelvemonth ago. Assessment work is also being done on most of the claims; indeed, it is noteworthy that but a few locations made last year have been abandoned. There is a good deal of confidence in our camp thus evinced. This assessment work has never been sufficient, however, to demonstrate the value of any claim. Something more is necessary if claim-holders expect to get any price for their properties. The buyer must have some better inducement to invest even a few thousand dollars in a prospect, no matter how good the indications may be.

Work is still progressing on the Lucky Strike, where in the neighbourhood of 250 sacks of clean ore are packed ready for shipment. It is said this will be consigned to Swansea for treatment.

Several properties in the North Thompson section of this district are attracting a good share of attention at this time. One of these is the Golden Eagle claim on Jamieson Creek, seventeen miles from Kamloops. A tunnel is being driven, and with the drift, is in some thirty feet. The ledge is four feet wide and carries gold and silver with a small percentage of copper.

The North Thompson Valley is a silver country. A number of good ledges of silver-bearing ores have been located, and not long ago I saw a very rich sample of galena from a claim about which I shall have more to say in a future issue. The great drawback to the development of many of these prospective mines is the lack of adequate means of communication. But the same difficulty has been remedied in other parts of the province, and no doubt will be in this district also.

The Hon. Clifford Sifton visited Kamloops on November 6th, and advantage of the occasion was taken by the Board of Trade to bring to his notice the proposed route from this town to the northern gold fields. So far as a railway to the Yukon country is concerned this is the most feasible route. Part of the road was surveyed for the C.P.R. many years ago, and in 1886 Mr. Bell, C.E., surveyed the route in connection with a suggested railroad to Cariboo. There is no doubt whatever that if a railway is built to the Yukon gold fields it will start from Kamloops, and as the desirability of having such a railroad, establishing an undisputed all-Canadian route, overland, rendering travel to and from the remote north as comfortable in midwinter as in summer time, there appears to be no reason for delaying the construction of the line. It would undoubtedly mean the opening up of vast mineral resources that at this date cannot be worked by reason of the tremendous cost of taking in supplies and machinery. It would mean the preservation to Canada of nearly the whole of the Yukon trade. It would mean the establishing of towns in places now unheard of save by the adventurous prospector. Population and money would be attracted to the rich interior of the province, and an era of prosperity would be inaugurated far in excess of that likely to

result from the proposed additional facilities for travel offered by steamship lines on the coast.

In the meantime the citizens of Kamloops are not idle. A survey party has been sent up the North Thompson road to a point fifty-five miles from Kamloops, whence there is a trail leading to Bridge Creek on the Cariboo Road. This trail is thirty miles long and the surveyor will examine the ground with the view of furnishing reliable data for the use of a deputation to be sent by the people of Kamloops to Victoria for the purpose of asking the Government to build that short piece of road for them. This, if done, would give Kamloops a better outlet than it now offers for those who will outfit there and go north by the overland trail from Quesnelle.

A number of claims have been bonded recently, among them being the Cliff, Bonanza and Pot Hook to Henry Croft, and the Neighbour and Champion claims to the B.C. Exploration Syndicate.

There are bonders of claims of more than one stamp, unfortunately, and while we have had examples of the right kind, there have not been wanting many instances of the undesirable class of operators. These men visit a new camp, announce themselves as "mining experts" looking for investments. They are promptly shown over the camp and bond several claims in whose development they have not the faintest notion of expending a cent. That is not the idea at all; the intention is to sell to some "wild-cat" company looking for a property to serve as a peg upon which to hang their title; or to palm the claim or claims off on some unwary tenderfoot. Such men do no good to any camp and unfortunately Kamloops has had its share of them and they have done harm by locking up properties that men who really mean business would have bought and developed.

The Iron Mask muddle to which I referred last month is as far from being straightened out, notwithstanding the fact that Hon. Clarke Wallace, interested in both the British and Canadian Gold and Silver Mines Company, the Coal Hill Gold, Silver and Copper Mining Company, come here with the express purpose of making a settlement with Mr. Newman.

Someone must be very much in the wrong else surely an amicable arrangement could have been readily arrived at. From what I can learn the courts will be called upon to settle the difference. This is a pity, as it practically means tying up the property for an indefinite time.

M. S. WADE.

#### FROM KASLO.

THE Slocan has always been considered "a winter camp," and in a great measure can still claim that distinction, although in the past two years a number of tramways have been constructed from the several different mines to the railways. Yet the great bulk of the ore is transported from ore house to railway car by the raw-hiding process, which is more expeditious and cheaper than packing. The higher ranges of mountains are now covered with snow, and thereover soon valuable streams of argentiferous galena, mined during the fall and summer, will be gravitating on the way to smelters.

In a mountainous region like the Slocan out of so many rich producing mines it is not to be wondered at that there would be occasional failures, especially

when the management is incompetent. The recent Noble Five, Wonderful and Ibex mines *fiascos* occasioned much comment, but the consensus of opinion regarding the Noble Five collapse is that it was due solely to mismanagement.

Of the Ibex, the man on the street will ask in discussing the failure, "Did I not foretell it?" For many have maintained from the start that the Ibex was "a nurtured fraud," notwithstanding that an official of the province and a well-known railway man were prominent as directors of the concern.

In common with all new camps the Slocan has been handicapped in supporting an army of incompetents placed in charge of mines, besides a host of wild-cat brokers. But gradually the lesson is being learnt, and the ranks of the former class are becoming thinner, while a long-suffering and deluded public are at last beginning to give the cold shoulder to the latter.

The writer has been connected with mining in the Far West for nearly twenty-four years, and there is one fact he never could quite understand. Let me illustrate.

Suppose a syndicate of business men is formed, and a capital of \$50 is subscribed, for the purpose of establishing a peanut stand at a street corner. Well, the first thing the promoters of such an enterprise invariably do is to secure the services of an experienced salesman and manager for the stand in question—experience is the *sine qua non*. Not so, seemingly, if the venture is mining instead of peanut selling. These same men of business, after acquiring a mine property at a heavy cost, will in nine cases out of ten, install as manager the first cheeky applicant who presents himself, without considerations as to his competency or fitness for the position. Generally, however, this disregard for such small things as credentials is more strikingly exemplified when the candidate for the managership is a relative of an officer or director of the company.

But when in consequence a failure occurs it is the property that is condemned and not the incompetency of the manager or the carelessness of the company.

That terrible foe to legitimate mining enterprise, the "wild-cat," introduced into Rossland at the beginning of the boom there and afterwards to all portions of the province, has made its evil presence felt in Kaslo, and many have suffered from its claws. Especially do such wounds smart, as the snow creeps down the mountain sides and evidences of a hard winter appear. Not only staid business men but working women and girls have been severely scratched by this monster, to exterminate which even a Government "bounty" would be non-effectual.

R. H. KEMP.

#### VERNON NOTES.

SINCE my last letter things have brightened up a little in and about Vernon, and it is to be hoped that we shall now make a move forward. The sale of the Monashee is an accomplished fact, and the new owner will probably make things "hum" round the mine before very long. This is the second property that has changed hands lately in Vernon, and we are looking forward to a third that is very likely to be carried through shortly. Here is a summary of the camp's progress for the month: On the Blue Jay work is being steadily pushed forward in the



tunnel with very satisfactory results. The tunnelling contract on the Daisy has been completed and further instructions from London are expected shortly. The new mill of the Morning Glory is fast approaching completion and active preparations are being made to commence crushing. Work at Camp Hewitt is in full blast. The Gladstone claim is being opened up and from reports that have reached me the prospects improve as the work progresses.

Near Camp Hewitt and to the southward the Canada and American Gold Mining Company have acquired thirteen or fourteen claims which they intend developing this winter. Accommodation for thirty men has been provided. This looks like business and it is to be hoped that the company's courage and perseverance will be crowned by a full measure of success.

Work has been resumed once more on the Bon Diable with the exploitation of the No. 3 ledge, where the shaft is being sunk some twenty-five feet deeper.

The Ruby Gold Mining Company have set to work on the Golden Sunbeam, where a ledge and several good stringers of quartz carrying free gold have been struck. Efforts will be made to prove this part of the Company's property.

Captain May's Hic Jacet is still in the market although it is more than probable that the property will change hands shortly.

Some very fine specimens of quartz containing quantities of free gold were brought in for my inspection a few days ago, and Captain Vidler, the owner, is determined to develop some of the claims from whence the samples were obtained. These properties are situated near the Sarah to the southwest of the city.

The Pacific Gold Property Company has also acquired some extremely valuable properties in several parts of our district upon which they intend shortly to commence operations, and I shall be very much mistaken as a result of these investigations if it is not shortly proved that our part of British Columbia is as well mineralized as other parts of the province.

We have been honoured lately by visits from the Honourable Mr. Turner, our Premier, as also by the Honourable Mr. Higgins, Speaker of the House, besides numerous shining lights in the mining world who, without exception, express satisfaction of the brilliant prospects of the camp.

Should capitalists wish to have a hand in developing the resources of this section of British Columbia they should not defer their visits very much longer, otherwise our American cousins are certain to snap up everything worth having before the conservative Old World investor comes out of his shell.

Gradually the snow, which has now covered the mountains all round us, is creeping lower down and another week or ten days may see us equipped with snow shoes, while sleigh runners will replace the wheels of all vehicles. F. ADRIAN MEYER.

#### PUBLICATIONS.

**T**HE Mineral Industry; Its statistics, Technology and Trade in the United States and other countries to the end of 1896, 5th Vol.; Edited by Richard P. Rothwell. The Scientific Publishing Co., New York and London. Price \$5. This is an exceedingly valuable addition to the series of handsomely bound and well printed volumes published by the Scientific Publishing Co. The information covers a wide field of investigation, and the contributors are in every case recognized authorities on the subjects treated. With reference to the mineral production of British Columbia (page 760), the following is interest-

ing: "The British Columbia lead ore is mostly exported to the United States in crude form. A good deal of it is smelted in bond at Denver, Colo., and its lead, after desilverization is then shipped to Liverpool by way of Galveston, Texas." It would be interesting to learn who is the authority of this statement, the correctness of which we strongly doubt.

The Trenton Iron Co., Trenton, N. J., issue a useful little work (illustrated) on Wire Rope Transportation, showing the advantages of the "Bleichert," "Anne" and "Roe" patent systems. The advantages of the "Bleichert" system are summed up under the following heads:

1st. It is adapted to the heaviest traffic. Loads up to a ton in weight may be carried, and from eighty to one hundred tons per hour transported, which is not possible with any kind of single-rope tramway.

2nd. A speed of three to four miles an hour can be maintained, which is not practicable in single-rope lines of the Hallidie and Husan types.

3rd. The number of cars required for a given service is less than on other lines.

4th. The steepest grades can be surmounted without difficulty.

5th. Less power is required, or more developed, as the case may be, than in any other system.

6th. The low cost of operation and maintenance.

The "Acme" system differs from the "Bleichert" in the fact that the cars are adapted to run on surface rails as well as from overhead cables, without detachment from the traction rope.

The "Roe" single-rope system possesses the merit of simplicity, and is designed to meet the demand for a more economical installation than the "Bleichert" or "Acme" systems. We would strongly advise mine-owners to write to the compilers for a copy of this book.

We are indebted to Mr. Eugene A. Smith, State Geologist, for copies of "A Sketch of the Mineral Resources of Alabama," and "The Life of Michael Tuomey," the distinguished geologist and author. Alabama has been one of the first states to recognize the value of testing the physical properties as well as the chemical composition of clays, and the result of recent tests thus made has shown that within the beds of the coastal formation of this state, there occur both Roolin's and potter's clays, as well as other kinds, of excellent quality, and well worthy of early and extensive development.

Letters from Jas. G. Reveler, Burton City; "Capitol," Kamloops; a map of the mining divisions of the Province, and several interesting articles from contributors have been unavoidably crowded out of this issue.

#### STOCK MARKET.

**T**HE stock market appears to be improving, and there has been quite an active demand for Excelsior shares in the Lillooet district, and these shares have advanced from 30 cents to 50 cents per share. Recent assays have gone as high as \$586 per ton, and the ledge is twenty feet wide, with six inches of rich decomposed quartz. This property is immediately adjoining the famous Golden Cache.

In Trail Creek district the favourite stocks have been Le Roi, War Eagle, Josie, Iron Mask, Poorman, Monte Cristo, Virginia and Great Western.

The controlling interest in the Virginia has been purchased by a Montreal syndicate, the same parties who control the Monte Cristo and Colonna.

The Great Western controlling interest has been purchased by a British Company represented by the Hon. C. H. MacIntosh.

The Fire Mountain shares, Harrison Lake district, have advanced from 50 cents to \$1 per share, owing to very encouraging reports from this mine.

In the Fairview camp, Winchester Treasury shares have been taken off the market, and there are very few offering for sale. Tin Horn shares are scarce @ 80 cents per share.

In the Slocan district the troubles of the Noble Five have sent Noble Five stock away down to about 15 cents.

The Argo has again commenced operations, which is creating some enquiry for Argo stock, as the mine is immediately adjoining Sandon railway station, and cost of transportation is cheaper than any other mine in the Slocan district. The Argo is only capitalized for \$100,000.

On Texada Island active developments are proceeding on quite a number of mines, but the outside public do not seem to appreciate the true value of Texada Island as a mining district. The day is not far distant when Texada Island will astonish people. Texada Island stocks are worth watching.

## THE QUEEN BESS.

TO THE EDITOR:—I am in receipt of a cablegram from the "Queen Bess Proprietary Co., Ltd.," (London) stating that an error had occurred in the prospectus of the Company whereby it was made to appear that the ore "in sight" was estimated by Mr. R. C. Campbell-Johnston, M.E., to be \$474,500, whereas the figure should have been \$208,500.

This error has been rectified in London, and I deem it fair to Mr. Campbell-Johnston to make this public statement, so that the mistake may in no wise be attributed to him.

I have the honour to be,

Your obedient servant,

C. KINGSLEY MILBOURNE.

Nelson, B.C., Nov. 18th, 1897. Managing Director in B.C.

## London Quotations.

(From the B. C. Review, London, Eng.)

Name of Company.	Paid up.	Price.
B.C. "Devels" .....	£1 f.p.	1 $\frac{3}{4}$ 2
London & British Columbia Goldfields.	10/-	$\frac{1}{8}$ dis par
British Columbia Financial Trust .....	10/-	$\frac{1}{8}$ dis par
Vancouver & B.C. General Exploration	10/-	par $\frac{1}{2}$ pm
Galena Mines .....	£1 f.p.	$\frac{1}{8}$ dis par
Goldfields of British Columbia .....	f.p.	$\frac{1}{8}$ dis par
Dundee Gold .....	\$1	1/- 1/6
Lillooet, Fraser River & Cariboo Gold-	£1	$\frac{1}{2}$ $\frac{3}{4}$
fields .....	—	par $\frac{1}{8}$ pm
Klondyke Columbia Goldfields .....	5/-	$\frac{1}{2}$ dis par
Klondyke Mining, Trading & Transport	10/-	$\frac{1}{4}$ dis par
British Columbia Devel. Ass. ....	£1	1 $\frac{3}{4}$ $\frac{3}{4}$
Hall Mines .....	—	$\frac{1}{2}$ $\frac{1}{2}$ pm
Duncan Mines .....	10/-	3-16 5-16 pm
Fairview .....	10/-	4 $\frac{1}{2}$ $\frac{3}{4}$
Recordia .....	10/-	—

## Dividend-paying Mines,

## TRAIL CREEK DISTRICT.

	Capital.	Shares.	Par Value.	Total Amount.	Date Last.
Le Roi, g.c. ....	\$2,500,000	500,000	\$ 5 00	\$ 675,000	Nov. '97
War Eagle, g.c. ....	500,000	500,000	1 00	187,000	Oct. '96

## SLOCAN DISTRICT, B.C.

Rambler-Cariboo, s.l. ....	1,000,000	1,000,000	1 00	40,000	April '97
Reco, s.l. ....	1,000,000	1,000,000	1 00	150,000	May '97
Slocan Star, s.l. ....	500,000	1,000,000	50	300,000	Dec. '96
Two Friends. ....	240,000	800,000	30	20,000	March '97

## CAMP MCKINNEY, OSOYOOS DIVISION.

Cariboo, g. ....	800,000	800,000	1 00	141,410	Sept. '97
------------------	---------	---------	------	---------	-----------

The following properties are privately owned :

MINE.	DISTRICT.	Estimated Profits.
Payne, s. l. ....	Slocan, B.C. ....	\$250,000 00
Idaho, s. l. ....	Nelson, B.C. ....	132,000 00
Poorman, g. ....	Slocan, B.C. ....	50,000 00
Ruth, s. l. ....	do .....	50,000 00
Whitewater, s. l. ....	do .....	40,000 00
Washington, s. l. ....	do .....	20,000 00
Slocan Boy, s. l. ....	do .....	25,000 00
Goodenough, s. l. ....	do .....	35,000 00
Noble Five .....	do .....	50,000 00
Northern Belle, s.l. ....	do .....	20,000 00
Antoine, s. l. ....	do .....	10,000 00
Surprise, s. l. ....	do .....	20,000 00
Monitor, s. l. ....	do .....	15,000 00
Last Chance, s. l. ....	do .....	50,000 00
Dardanelles, s. l. ....	do .....	—

# The Royal Electric Company

MONTREAL, QUEBEC.

—MAKERS OF—

## Electrical Mining Machinery

### MOTORS

Adapted for Operating Stamps, Compressors, Hoists, Trams, Drills, Pumps.

Lighting Plants for Mines and Buildings.

## OUR S. K. C. SYSTEM

RENDERS DISTANT WATER POWERS AVAILABLE

FOR ALL CLASSES OF MINING WORK.

— WRITE OUR BRITISH COLUMBIA BRANCHES AT —

Rossland.

36 Government St., Victoria.



James Watson &amp; Co.'s, Dundee,

IT WILL PLEASE YOU

## THREE STAR GLENLIVET WHISKEY

Is sold by all the best retail dealers in Liquors. . . Ask for it and see that you get it. . . . The trade supplied by . . .

**PITHER & LEISER,**  
VICTORIA, B.C.

## Shipping Mines.

From January 1 to November 20, inclusive, the shipments of ore from mines at Rossland to smelters were as follows:

Mine.	Tons.
Le Roi .....	51,477
War Eagle .....	6,878
Columbia and Kootenay .....	2,390
Iron Mask .....	2,894
Jumbo .....	91
Josie .....	385
Cliff .....	887
Centre Star .....	1,214
Red Mountain .....	56
*O.K. ....	172
Evening Star .....	39
Giant .....	21
I.X.L. ....	12
Velvet .....	10
Little Joe .....	15
Poorman .....	60
<b>Total .....</b>	<b>66,584</b>
*Concentrates.	

From January 14 to June 10, inclusive, the ore milled in the camp was as follows:

O.K. ....	2,472
I.X.L. ....	230
<b>Total .....</b>	<b>2,702</b>

The shipments of ore from Sandon from August 1 to November 11, inclusive, 1897, were as follows:

	Tons.
Slocan Star .....	1,880
Ruth .....	2,675
Payne .....	4,790½
Idaho Mines .....	426
Noble Five .....	512½
Reco .....	430
American Boy .....	29
Slocan Boy .....	45
Wonderful .....	29
Ajax .....	29½
Majestic .....	12
Freddie Lee .....	16
Mt. Adams .....	15
Last Chance .....	30
Goodenough .....	15
Miscellaneous .....	9½
<b>Total .....</b>	<b>10,943¾</b>

	Tons.	Approximate Value.
Total so far for November .....	5,096	\$ 806,452
Total for October .....	5,105	835,050
Total for September .....	4,604	714,225
Total for August .....	5,070	675,189
Total for July .....	4,139	543,832
Total for June .....	3,464	433,885
Total for May .....	2,995	397,797
Total for April .....	3,764	433,234
Total for March .....	5,822	677,681
Total for February .....	5,201	562,853
Total for January .....	4,543	675,506
Total via Revelstoke to October 31st .....		719,132
Total to date, 1897 .....	50,513	7,546,444

## Mining Stocks.

Prepared by A. W. More & Co., Mining Brokers, Victoria, B.C., Sep. 18, '97

Company.	Capital.	Par Value.	Price.
TRAIL CREEK.			
Big Three .....	\$3,500,000	\$1	\$ 10
Bruce .....	1,000,000	1	10
Butte .....	1,000,000	1	02
Caledonia Con. ....	500,000	1	05
California .....	2,500,000	1	15
Camp Bird .....	1,000,000	1	05
Celtic Queen .....	750,000	1	06
Centre Star .....	500,000	1	
Colonna .....	1,000,000	1	25
Commander .....	500,000	1	18
Deer Park .....	1,000,000	1	12
Delaware .....	1,000,000	1	12
Eastern Star .....	500,000	1	20
Enterprise .....	1,000,000	1	9
Evening Star .....	1,000,000	1	15
Georgia .....	500,000	1	10
Gertrude .....	500,000	1	15
Golden Drip .....	1,000,000	1	10
Great Western .....	1,000,000	1	10
Hattie Brown .....	500,000	1	05
High Ore .....	1,000,000	1	10
Imperial .....	1,000,000	1	20
Iron Horse .....	500,000	1	37
Iron Mask .....	1,000,000	5	10
I.X.L. ....	700,000	1	28
Josie .....	500,000	1	70
Jumbo .....	1,000,000	1	10
Kootenay-London .....	2,500,000	1	8 50
Le Roi .....	1,000,000	1	20
Lilly May .....	1,000,000	1	15
Mabel .....	1,000,000	1	11
Mayflower .....	750,000	1	19
Monita .....	1,000,000	1	20
Monte Cristo .....	1,000,000	1	08
Morning Star .....	1,000,000	1	05
Nest Egg-Firefly .....	1,000,000	1	10
Northern Belle .....	1,000,000	1	05
Novelty .....	1,000,000	1	05
Palo Alto .....	500,000	1	12
Phoenix .....	500,000	1	10
Poorman .....	1,000,000	1	11
Red Mountain View .....	1,000,000	1	22
Rossland, Red Mountain .....	1,000,000	1	04
St. Elmo .....	1,000,000	1	12½
St. Paul .....	500,000	1	04
Silverine .....	500,000	1	20
Southern Cross & W. Con .....	500,000	1	11
Virginia .....	2,000,000	1	1 00
War Eagle Consolidated .....	500,000	1	20
West Le Roi .....	2,000,000	1	19
White Bear .....			
AINSWORTH, NELSON AND SLOCAN.			
American Boy .....	1,000,000	1	15
Fern Gold .....	2,000,000	0 25	60
Ibex of Slocan .....	300,000	0 25	2½
Arlington .....	1,000,000	1	13
Argo .....	100,000	0 10	10
Athabasca .....	1,000,000	1	30
Black Hills .....	100,000	0 10	10
Buffalo of Slocan .....	150,000	0 25	25
Bondholder .....	1,000,000	1	04
Alamo .....	500,000	1	
Canadian M. M. and S. Co. ....	2,000,000	1	07½
Cumberland .....	500,000	10	
Dardanelles .....	1,000,000	1	15
Dellie .....	750,000	1	12
Eldon .....	1,000,000	1	05
Elise .....	1,000,000	1	05
Ellen .....	1,000,000	1	07½
Elkhorn .....	1,000,000	1	10
Exchequer .....	1,000,000	1	10
Goodenough .....	800,000	1	25
Gibson .....	650,000	1	17½
Grey Eagle .....	750,000	1	
Hall Mines .....	300,000	£1	9 50
Idler .....	1,000,000	1	12½
London .....	150,000	1 25	25
Minnesota .....	1,000,000	1	25
Nelson-Poorman .....	250,000	0 25	25
Northern Light .....	250,000	1	16½
Noble Five Con .....	1,200,000	1	15
Ottawa and Ivanhoe .....	1,000,000	1	12½
Phoenix Consolidated .....	1,000,000	1	07
Rambler Con .....	1,000,000	1	42
Reco .....	1,000,000	1	1 75
Slocan-Reciprocity .....	1,000,000	1	06
Slocan Star .....	500,000	50	2 50

COMPANY.	Capital.	Par Value.	Price.
Santa Marie.....	\$1,000,000	\$1	05
Sheriff.....	1,000,000	1	24
Silver Band.....	250,000	0 25	12½
Slocan Queen.....	1,000,000	1	10
Star.....	1,000,000	1	05
St. Keverne.....	1,000,000	1	05
Sunshine.....	500,000	10	
Two Friends.....	240,000	30	20
Washington.....	1,000,000	1	25
Wonderful.....	1,000,000	1	06
LARDEAU.			
Consolidated Sable Creek Mining Co.....	1,500,000	1	10
TEXADA ISLAND.			
Texada Proprietary.....	250,000	25	25
Van Anda.....	5,000,000	1	06
Victoria-Texada.....	150,000	0 25	25
Texada Kirk Lake.....	600,000	1	1 00
Raven.....	1,000,000	1	10
Gold Bar.....	100,000	0 10	10
VANCOUVER ISLAND.			
Alberni Mountain Rose.....	250,000	1	05½
Consolidated Alberni.....	500,000	1	11
Mineral Creek.....	800,000	1	05½
Mineral Hill.....	750,000	1	05
Quadra.....	500,000	1	10
CARIBOO.			
Cariboo Gold Fields Ltd.....	£100,000		
Cariboo Hydraulic.....	300,000		
Horsefly Hydraulic.....	200,000		
Horsefly Gold Mining Co.....	1,000,000	10	2 50
Cariboo M. & D. Co.....	300,000	1	25
Golden River Quesnelle.....	£350,000	£1	2 75
Victoria Hydraulic.....	300,000	1	85
LILLOOET DISTRICT.			
Golden Cache.....	500,000	1	1 50
Alpha Bell.....	500,000	1	50
Cayoosh Creek Mines.....	500,000	1	50
Lillooet Gold Reefs.....	200,000	25	25
Excelsior.....	500,000	1	50
FAIRVIEW CAMP.			
Tin Horn.....	200,000	0 25	70
Winchester.....	250,000	0 25	33
BOUNDARY.			
Old Ironsides.....	1,000,000	1	11
Golden Crown.....	1,500,000	1	10
Boundary Creek M. & M. Co.....	1,500,000	1	10
CAMP MCKINNEY.			
Cariboo.....	800,000	1	53

† Dividends declared to date are as follows: Le Roi, \$625,000; War Eagle, \$217,500; Cariboo, \$172,000; Slocan Star, \$400,000; Reco, \$150,000; Rambler Cariboo, \$40,000; Idaho, \$152,000. Alamo, Cumberland, Noble Five Payne and Goodenough have also paid dividends.

We are informed that the Payne mine in the Slocan is paying profits to its three owners of almost \$100,000 per month. It is not incorporated.

### Catalogues of Mining Machinery and Supplies.

The following firms will be pleased to forward catalogues to readers of THE MINING RECORD:—

Joshua Hendy, Machine Works, San Francisco, Cal. Mining machinery of all kinds.

The Pelton Water Wheel Co., San Francisco. Water wheels. John Taylor & Co., San Francisco, Cal. Mine and mill supplies, chemicals, etc.

Canadian Rand Drill Co., Montreal and Rossland. Mining machinery.

Fried. Krupp Grusonwerk, Magdeburg-Buckau, Germany, and Montreal, Mining and Milling Machinery of every description.

Hamilton Powder Co., Montreal and Victoria. Explosives.

M. Beatty & Sons, Welland. Dredgers, ditchers, etc.

Theodore Lexow, New York. Carbons, diamond drills, etc.

James Macbeth & Co., New York. Electric blasting supplies.

Bradley Pulverizer Co., Boston. Griffin mill.

Colorado Iron W'ks, Denver. Milling and smelting plants.

Canadian General Electric Co., Electric supplies, Vancouver.

John Boyd & Co., Machinery and Supplies, Vancouver.

Jas. Leffel & Co., Water Wheels, Springfield, Ohio.

Geo. W. Pennington & Sons. " " "

Geo. N. Pennington & Sons. San Francisco, Cal.

Gates Iron Works, Chicago. Mining machinery of all kinds.

Royal Electric Co. Electric Power and Supplies, Montreal.

Victoria, B.C.

Wm. Ainsworth, Denver, Colo., Balances and Instruments.

Hercules Gas Engine Works, San Francisco, special Mine Hoists.

MacFarlane & Co. Assay and mining supplies. Vancouver, B.C.

The mining claims on

### LEMON CREEK

Are attracting the attention of capitalists. Information about this section may be obtained by subscribing to

## "THE SLOCAN PIONEER"

Published at Slocan City, B.C.

### LONDON REGISTERED COMPANIES.

NAME OF COMPANY.	When Registered	Authorized Capital	Nominal Value	Address of London Office
Adams B.C. Company.....	1897	£100,000	£1	28 Gracechurch St.....
Big Valley Creek, Cariboo.....	1896	125,000	1	6 Great St. Helens, E.C.....
B.C. Corporation.....	1891	300,000	10	70 Basinghall St.....
B.C. Development Association.....	1895	20,000	1	45 Broad St. Ave.....
B.C. Financial Trust.....	1897	250,000	1	Blomfield House, E.C.....
B.C. Land Investment Agency.....	1887	110,000	1	
B.C. Mining.....	1896	20,000	10	Suffolk House, Cannon St.....
B.C. Syndicate.....	1895	2,900	1	30-1 St. Swithin's Lane.....
B.C. Dev. Syndicate.....	1897	30,000	1	10 St. Helen's Place.....
British Kootenay Syndicate.....	1895	10,000	1	20 Bucklersbury.....
B.C. Purchase Syndicate.....	1894	8,000	1	14 Old Jewry.....
Canadian Pacific Exploration.....	1897	500,000	1	88 Cannon St.....
Cariboo Goldfields.....	1894	100,000	1	6 and 8 Eastcheap.....
Cariboo Reefs.....	1895	20,000	1	36 Walbrook.....
Corinth Mines, Limited.....	1895	100,000	1	16 George St., Mans'n House
Cottonwood (B. C.) Alluvial Mining.....	1896	65,000	1	55-6 Bishopsgate St.....
Dominion Mining Development and Agency.....	1897	100,000	1	6 Gt. Winchester St., E.C...
E. Kootenay Exploration Synd.....	1892	67,500	1	358 Mansion House Chbrs..
Fraser River Mines.....	1895	10,000	5	9 Gracechurch St.....
Galea Mines, West Kootenay.....	1896	550,000	1	20 Threadneedle St.....
Globe Venture Synd., Kootenay.....	1897	100,000	1	34 Old Broad St.....
Golden River, Quesnelle.....	1896	350,000	1	6 Great St. Helens.....
Goldfields of British Columbia.....	1897	600,000	1	16 Copthall Ave.....
Hall Mines.....	1893	300,000	1	Leadenhall Buildings.....
Invicta Mines, East Kootenay.....	1895	100,000	1	25 Abchurch Lane.....
International Development of B.C.....	1897	300,000	..	31 Lombard St.....
Klondyke Mining, Trading and Transport Corp.....	1897	250,000	1	
Kootenay (B.C.) Mining Synd.....	1897	10,000	1	22 Fenchurch St.....
Kootenay Promotion Syndicate.....	1896	200	1	9 and 10 King St.....
Kootenay Ore Company.....	1896	25,000	10	2 Suffolk Lane, Cannon St.
Kootenay and Cariboo Synd.....	1896	5,000	1	
Kootenay Development.....	1897	10,000	1	22 Fenchurch St.....
Kootenay Goldfields Syndicate.....	1896	20,000	1	39 Lombard St.....
Lillooet, Fraser and Cariboo Goldfields.....	1895	300,000	1	1 and 2 Gt. Winchester St..
London and British Columbia Goldfields.....	1896	200,000	1	3 Laurence Pountney Hill
London and Vnevr Finance, etc.....	1897	100,250	1	
New Fraser River.....	1897	75,000	1	23 Leadenhall St.....
New Goldfields of B.C.....	1897	250,000	1	23 Leadenhall St.....
New Vancouver Coal Mining and Land.....	1889	215,000	1	12 Old Jewry Chambers....
Pioneer Development and Exploration of B.C.....	1896	150,000	..	9 and 10 King St.....
Quesnelle and Cariboo Goldfields, etc., Synd.....	1895	12,000	50	Hart's Head Ch., Sheffield.
Quesnelle River Mining.....	1897	55,000	1	
Revelstoke Mining.....	1889	40,000	10	27 Clement's Lane.....
Vancouver and B.C. Gen. Expl Waverly Mine.....	1896	25,000	1	20 Threadneedle St.....
Adventurers of B.C.....	1897	100,000	1	16 Copthall Ave.....
B.C. Agency.....	1896	5,507	1	3, 4, 5, Queen Street.....
B.C. and Canada Mining.....	1897		1	15-16 George St., Mansion H.
B.C. and Dominion Exploration.....	1897		1	10-12 Walbrook.....
B.C. Discovery.....	1896		1	Dashwood House.....
B.C. Exploring Syndicate.....	1896	9,007	1	103 Cannon St.....
B.C. Gold Trust.....	1897	1,100	1	16 St. Helen's Place.....
B.C. Proprietary Company.....	1896		1	
B.C. Prospectors.....	1896		1	Broad Street Avenue.....
B.C. Dev. Company.....	1897	39,000	1	3 Gracechurch St.....
Canada Venture Syndicate.....	1895		1	31 Lombard St.....
Canadian Goldfields.....	1896	1,007	1	3 Lombard St.....
Fairview Mining Company.....	1897		1	3 Gracechurch St.....
Mikado Gold Mining Co.....	1896	36,207	1	79 Gracechurch St.....
Recordia Syndicate.....	1897	5,000	1	16a Tokenhouse Yard.....

## TO MINING INVESTORS!

**Why buy stocks?** When you can get an undivided interest in a partly developed property that will no doubt make a mine, for a few hundred dollars.

These interests are offered to enable the owners to carry on development.

Our British Columbia laws fully protect purchasers of fractional interests, so that there is no chance of being frozen out.

I also have groups, partly developed, for large companies. I make it a point to personally inspect properties, and handle nothing but the best.

Copy of Mining Laws forwarded for 30 cents.

Correspondence solicited.

Bank references furnished.

British Columbia Manager  
London and Lancashire Life Assurance Co.

**GEORGE D. SCOTT,**

42 Fort Street, - - - Victoria, B.C.



**WANTED**—By a first-class Machinist and Engineer employment as such. For particulars as to qualification, etc., inquire from editor of this paper.



IN THE MATTER OF THE "PLACER MINING ACT (1891) AMENDMENT ACT, 1895" (SECTION 13), AND OF THE "MINERAL ACT, 1896" (SECTION 161).

**NOTICE** is hereby given that His Honour the Lieutenant-Governor-in-Council has been pleased to repeal the regulation of the 11th day of December, 1896, with regard to relief against forfeiture owing to the lapse of a Free Miner's Certificate heretofore in force, and to make the following regulation in respect thereof, such repeal and new regulation to take effect on the 15th day of November, 1897:

Any person or joint stock company, being the holder of any mining property, desiring relief against the forfeiture of his or its interest in such property by reason of an omission to obtain a new free miner's certificate on or before the day following the expiration of the certificate, shall observe the following conditions:

1. Forthwith upon ascertaining the expiry of his certificate obtain a new one:

2. At the time of obtaining such new certificate file with the Recorder issuing the same, and post in the Record Office, a notice of his intention to apply for relief:

3. Within 30 days from such filing, transmit to the Minister of Mines the following documents and fee:—

(a) A statutory declaration setting forth the circumstances of such omission, with full particulars of the mining properties held by the applicant which would be affected with forfeiture:

(b) A certificate under the hand of the Gold Commissioner or Mining Recorder of each division wherein any of the said properties is situate, that notice has been posted, and that no records (other than those mentioned in the said certificate, if any) adverse to the applicant's interest in the said properties have been made by him during the time in which the said applicant was not in possession of a valid existing free miner's certificate:

(c.) A declaration by the applicant, or his agent duly cognizant of the location on the ground of the applicant's properties, and the other facts affecting the case, that he has searched the records of claims recorded during the interval the applicant was in default, and that such claims do not (except as may be therein stated) conflict with or overlap any of the properties of the applicant:

(d.) The sum of five dollars.

The Minister of Mines may thereupon give instructions for the alteration of the date of the applicant's free miner's certificate so as to conform with the date of the expiration of the lapsed certificate, and may also give instructions for such amendment to be made to the records affected as may be considered requisite, and any such relief may be partial as to properties in respect whereof relief is given, or so as to save adverse rights acquired during default of the applicant.

JAMES BAKER,

Provincial Secretary and Minister of Mines.



PRIVATE BILLS.

EXCERPT FROM RULES AND ORDERS RELATING TO PRIVATE BILLS.

**ALL** applications for Private Bills, properly the subject of legislation by the Legislative Assembly of British Columbia, within the purview of the "British North America Act, 1867," whether for the erection of a Bridge, the making of a Railway, Tramway, Turnpike Road, or Telegraph or Telephone Line; the construction or improvement of a Harbour, Canal, Lock, Dam, Slide, or other like work; the granting of a right of Ferry; the incorporation of any particular trade or calling, or of any joint stock company; or otherwise for granting to any individual or individuals any exclusive or peculiar

rights or privileges whatever, or for doing any matter or thing which in its operation would affect the rights or property of other parties, or relate to any particular class of the community, or for making any amendment of a like nature to any former Act—shall require a Notice, clearly and distinctly specifying the nature and object of the application, and, where the application refers to any proposed work, indicating generally the location of the work, and signed by or on behalf of the applicants, such notice to be published as follows:—

In the *British Columbia Gazette* and in one newspaper published in the district affected, or if there be no newspaper published therein, then in a newspaper in the next nearest district in which a newspaper is published.

Such notice shall be continued in each case for a period of six weeks, during the interval of time between the close of the next preceding session and the consideration of the petition, and copies of such notice shall be sent by the parties inserting such notice to the Clerk of the House to be filed amongst the records of the Committee on Standing Orders.

57. No Petition for any Private Bill shall be received by the House after the first ten days of each Session, nor may any Private Bill be presented to the House after the first three weeks of each Session, nor may any report of any Standing or Select Committee upon a Private Bill be received after the first four weeks of each Session, and no Motion for the suspension or modification of this rule shall be entertained by the House until the same has been reported on by the Committee on Standing Orders, or after reference made thereof at a previous sitting of the House to the Standing Committees charged with consideration of Private Bills, who shall report thereon to the House. And if this rule shall be suspended or modified as aforesaid the promoters of any Private Bill which is presented after the time hereinbefore limited, or for which the Petition has been received after the time hereinbefore limited, shall in either case pay double the fees required as herein mentioned, unless the House shall order to the contrary. Any person seeking to obtain any Private Bill shall deposit with the Clerk of the House, eight days before the opening of the Session, a printed copy of such Bill, a copy of the Petition to be presented to the House, together with the notices published. At the time of depositing the Bill, the applicant shall also pay to the Clerk of the House a sum of three hundred dollars. If a copy of the Bill Petition and notices shall not have been so deposited in the hands of the Clerk of the House at least eight days before the opening of the Session, and if the Petition has not been presented within the first ten days of the Session, the amount to be paid to the Clerk shall be six hundred dollars. If the Bill shall not pass second reading one-half of the fees paid shall be returned.

60. Before any Petition, praying for leave to bring in a Private Bill for the erection of a Toll Bridge is received by the House, the person or persons intending to petition for such Bill shall, upon giving the notice prescribed by rule 59, also at the same time and in the same manner, give notice of the rates which they intend to ask, the extent of the privilege, the height of the arches, the interval between the abutments or piers for the passage of rafts and vessels, and mentioning also whether they intend to erect a drawbridge or not, and the dimensions of the same.

61. All Private Bills for Acts of Incorporation shall be so framed as to incorporate by reference the clauses of the General Acts relating to the details to be provided for by such Bills:—Special grounds shall be established for any proposed departure from this principle, or for the introduction of other provisions as to such details, and a note shall be appended to the Bill indicating the provisions thereof in which the General Act is proposed to be departed from. Bills which are not framed in accordance with this Rule shall be re-cast by the promoters and re-printed at their expense before any Committee passes upon the clauses.

65. All private Bills shall be prepared by the parties applying for the same, and printed in Small Pica type, twenty-six ems by fifty ems, on good paper, in imperial octavo form, each page when folded measuring  $10\frac{3}{4}$  inches by  $7\frac{1}{2}$  inches. There shall be a marginal number every fifth line of each page; the numbering of the lines is not to run on through the Bill, but the lines of each page are to be numbered separately. One hundred copies of each Bill shall be deposited with the Clerk of the House immediately before the first reading. If amendments are made to any Bill during its progress before the Committee on Private Bills, or through the House, such Bill shall be reprinted by the promoters thereof.

Dated 16th November, 1897.

THORNTON FELL,

Clerk, Legislative Assembly.



## HOIST OPERATED BY A GAS ENGINE.

ANOTHER STRIKING ILLUSTRATION OF THE ADAPTABILITY OF THIS POPULAR FORM OF POWER.

The wide field for the use of the gas engine has a new and striking illustration in its adaptation to the operation of hoisting machinery, an example of which is here given. The cut shows a heavy 40 horse-power geared double drum-hoist, manufactured by the Weber Gas and Gasoline Engine Co., of Kansas City, Mo. The works of the company are located at 453 Southwest boulevard, in that city, and are completely equipped for turning out engines of any size up to 50 horse-power, and suitable to all purposes for which gas engines are employed. Gas engines have nowhere found a broader field of usefulness than in the West, and in this region, as well as throughout the Union, the Weber engine is doing satisfactory service. Mr. G. J. Weber has made gas engine construction a careful study for many years, and to this fact the success of the company's product is no doubt due.

The machine shown weighs about 12,050 pounds. It is built very compactly, and will go into a room 7x13 feet 72 in. These hoisters are so arranged that, by changing the ratio of the gearing and the size of the drums, the company can give almost any lifting capacity with a corresponding foot travel—either high speed machines for light work, or slow speed machines for heavy work, as may be desired.

A large number of these machines are used for under-ground

hoisting and pumping, thereby, it is claimed, saving in the cost of installation and the cost of operation very largely over compressed air plants now in use for this class of work.

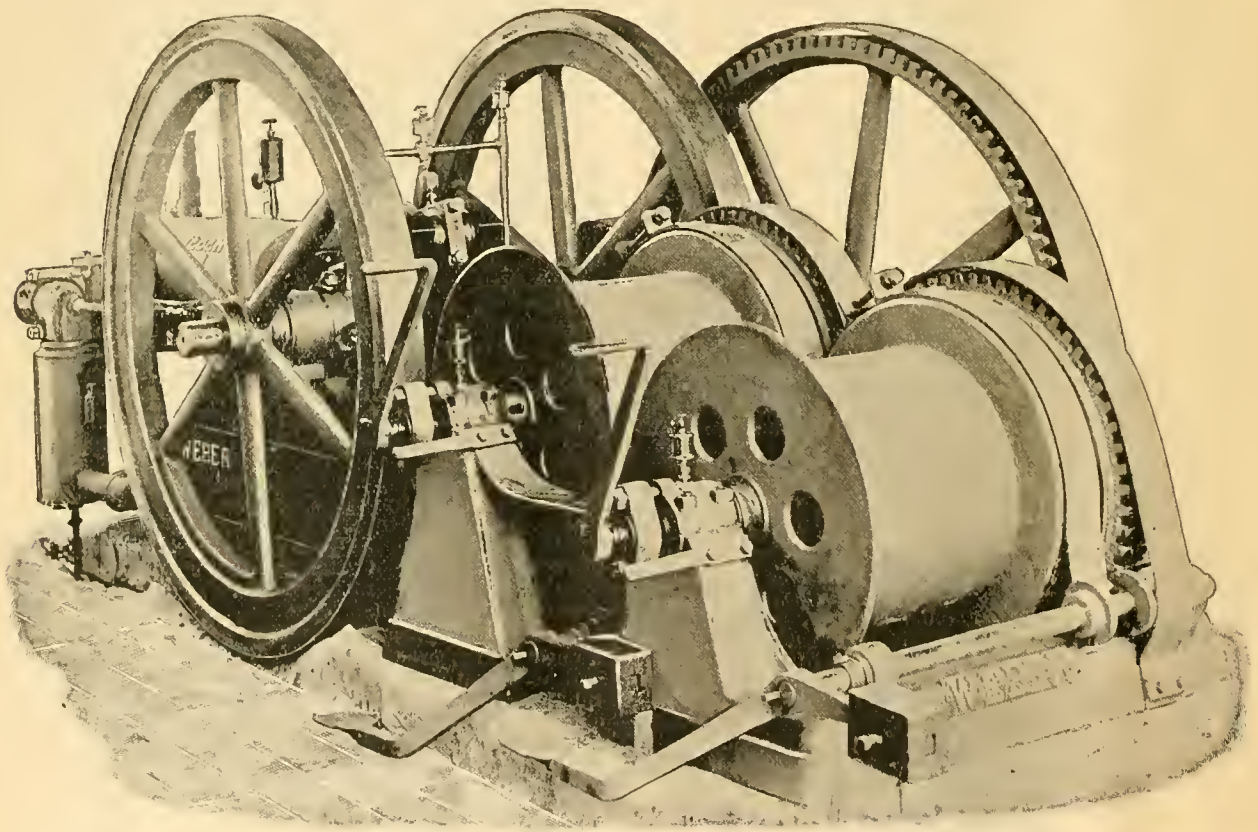
These machines are built exceedingly heavy, special attention being paid to safety.

All parts are of ample size, to withstand extraordinary strains. Special attention is called to the feature of using one heavy base casting, on which all of the machinery is mounted, making the alignment perfect and continuous.

These hoisters are in use by the Consolidated Kansas City Smelting and Refining Company, the Philadelphia Smelter Company, and other equally prominent concerns.

Mr. H. B. Hanna, manager for the Gopher Gold Mining Company, of Chaparral, Ariz., under date of June 7, writes that the geared hoist has been in continuous operation since May 23, doing everything guaranteed with perfect satisfaction, and that they are actually saving \$12 per day over a steam hoist. Mr. J. T. McLaughlin, of San Pedro, N. M., using a 10 horse-power prospecting hoist, working one shift, is doing all of his hoisting for 32 cents per day.

All of the Weber engines can be operated to use either gasoline, city gas, distillate or crude oil. The company issues a very neat catalogue, pertaining to Weber gasoline hoisting engines, which will be sent to interested parties on application. This catalogue also contains a list of supplies, such as rope, water barrels, ore buckets, trolley cars, gongs and dump-cars.



## OVER CHILKOOT PASS BY TRAMWAY.

The Trenton Iron Company have lately been awarded a contract by the Chilkoot Railroad and Transport Company, of Tacoma, for a wire rope tramway of the patent Bleichert system to go through the Chilkoot Pass. The line will run from Sheep Camp to Crater Lake, a distance of about three and a-half miles, making one bend of 153 degrees. The highest elevation, 2,600 feet above Sheep Camp, is reached at a point within 2,000 feet of the discharge terminal at Crater Lake, the fall from here to the lake being 500 feet. The line will be used for the trans-

portation of merchandise, ore, and passengers, and will form part of the general line of transportation for reaching the Klondyke by way of Dyea and Lake Lindeman. From Dyea to Sheep Camp, a distance of about four miles, it is proposed to lay a surface road, and from there on through the Pass the transportation will be affected by the wire rope tramway, although the entire distance may eventually be covered by a wire rope tramway, this matter being now under consideration. The tramway will have a capacity of five tons per hour, and it is expected that the line will be completed and ready to run by the middle of January.



**T. N. HIBBEN & COMPANY** ARE AGENTS FOR



**ADMIRALTY CHARTS and PUBLICATIONS.** They also carry the most recent Maps of the Province and Maps and Publications referring to the **KLONDYKE GOLD MINING DISTRICT.** They are the Oldest Established **BOOKSELLING** and **STATIONERY HOUSE** in British Columbia.

39 and 71 Government Street,

**VICTORIA, B.C.**

J. E. W. MACFARLANE,  
General Manager. Telephone 449.

JOHN O. NORBOM, E.M.,  
Supt. Mining Dept. Telephone 446.

J. W. CAMPION,  
Secretary-Treasurer. Telephone 310.

# B.C. IRON WORKS CO., Ltd.

Makers of All Classes of Machinery.

**ENGINEERS, GENERAL FOUNDERS AND BOILER MAKERS.**

## SOLE MANUFACTURERS OF

Kendall Band Mill,  
B.C. Shingle Machines,  
Steam Log Hauling  
Machines,  
Marion Steam Shovels,  
Improved Winding Hoist,  
River & Harbour Dredger,  
King Ditching Machines,  
Wrecking Machines,  
Ballast Unloaders, etc.

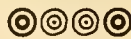
## AGENTS FOR

Reeve's Wood Split  
Pulleys.

CABLE ADDRESS, "COVE."

## SPECIAL NOTICE.

The Company are now prepared  
to manufacture all kinds of  
**MINING MACHINERY.**



## WE MAKE A SPECIALTY OF

MARINE ENGINES and  
BOILERS, and undertake  
building steamers com-  
plete. Also all classes of  
Hoisting Machinery—In-  
cluding Mining Hoists,  
Whins, Mining Pumps,  
Mining Tramway Outfits,  
Cars and Brakes, Air  
Compressors, Cornish  
Pumps, Rock Crushers,  
Stamp Mills and  
Concentrators.

**Sawmill Machinery generally, Engines and Boilers for all land purposes.**

We keep in stock a full supply of Engineers' and Mill supplies, Pipe and Fittings,  
Brass Goods Steam Fittings, etc. Estimates for boilers and engines on application.

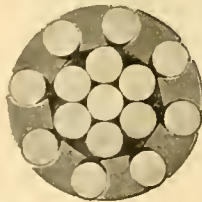
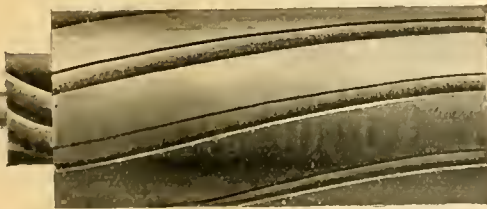
Mail Orders receive Prompt Attention.

Telephone 316, P.O. Drawer 754.

Corner Alexander Street and Westminster Avenue,

**VANCOUVER, B.C.**

See those wires—how they interlock? Note the smooth surface also?



THE PATENT  
**LOCKED-COIL**  
**TRACK CABLE**

No displacement of wires in any event. Gives three times the service of other cables, and adds correspondingly to the life of the rolling stock.

Is used only on the patent

**BLEICHERT WIRE ROPE TRAMWAY,**

and others manufactured by

**The Trenton Iron Co., Trenton, N. J.**

Engineers and Contractors and sole licensees in North America for the Bleichert System. Also, Wire Rope Equipments for Surface and Underground Haulage, Transmission of Power, etc. Illustrated book upon application.

NEW YORK OFFICE—Cooper, Hewitt & Co., 17 Burling Slip.

CHICAGO OFFICE—1114 Monadnock Building

## MINING BROKERS

BEAUMONT BOGGS &amp; CO.▲▲▲

Brokers and General Agents

VICTORIA, B.C.

Correspondence Solicited

Outfits and Supplies

FOR THE

Yukon Gold Fields

ARMSTRONG &amp; MORRISON

General Contractors  
and Manufacturers ofRIVETED STEEL PIPE,  
ORE CARS, ORE BUCKETS,  
MONITORS AND ELEVATORS.

ESTIMATES FURNISHED FOR COMPLETE MINING PLANTS.

715 Heatley Avenue,

VANCOUVER, B.C.

TRIM &amp; HADDOCK,

Proprietors Golden Cache Express.

Saddle Horses, Single and Double Rigs for Hire.

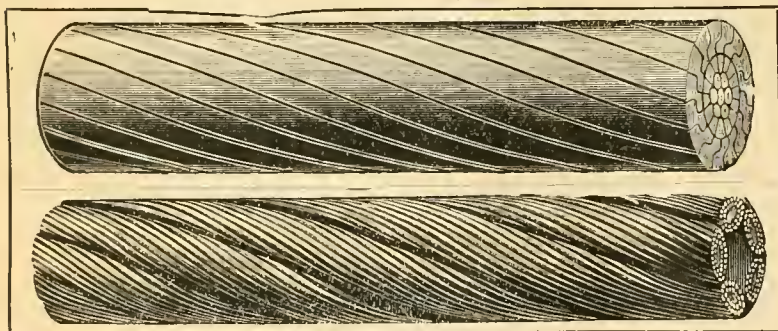
Ashcroft and Lillooet Monday and Thursday returning following days. Parties of three or more, buying return tickets, travelling on other days, can have special rig at regular rates.

—WHOLESALE AND RETAIL DEALERS IN HAY AND GRAIN.—

Stables at Ashcroft and Lillooet, B.C.

ASHCROFT, B.C.

Felten &amp; Guilleaume, Carlswerk Mulheim on Rhine, Germany

Electric Wires and Cables for  
Telegraphy, Telephony, Electric  
Light and Transmission of Power

WIRE...

Sole Agents  
for CanadaJack & Robertson, 7 St. Helen St.,  
MONTREAL

HARRIS, KENNEDY &amp; CO.,

Codes {A B C, Moreing &  
Neal's, Clough's.Box 157 ROSSLAND, B.C.  
and KASLO.Cable address:  
"Graham," Rossland.

MINING BROKERS.

WE have some valuable properties suitable for the English market. Confidential reports made on B.C. Mining Properties. References: Roberts, Lubbock &amp; Co., Bankers, 15 Lombard Street, E.C.; George Freeman, 23 Throgmorton Street, E.C., and others if required. Correspondence Solicited.

R. GREEN, B.A. Sc.

Mining Engineer,

Mines Surveyed.  
Reports on Mining Properties.

Rossland, B.C.

ROBERT MACDONALD.

NEIL MACDONALD.

Hotel Balmoral

....Macdonald Bros. Props.

—RATES: \$1.50 TO \$2.50 PER DAY.—

RECO AVENUE,

Sandon, B.C.



**DIRECT LINE to**  
**Helena, Butte, Chicago,**  
**New York, Montreal,**  
**Toronto, and all Points in the EAST.**

ONLY 22 hrs. from Victoria to Spokane  
 30 " " " " Rossland  
 33 " " " " Nelson  
 36 " " " " Kaslo  
 36 " " " " Grand Forks



**RUNS**

**Pullman Sleeping Cars,**  
**Elegant Dining Cars,**  
**Upholstered Tourist**  
**Sleeping Cars.**

SAVE both **TIME** and **MONEY** if you are  
 going to the gold fields of Kootenay or  
 Kettle River Districts by travelling via

## The Northern Pacific Railway

**THE FASTEST ALL-RAIL ROUTE.**

**Quick Time, and no delay in transit**

TRAVELLERS from the East or from the West will find this the Quickest and most  
 Comfortable Route to the Gold and Silver Districts of British Columbia. . . .

**TIME SCHEDULE**—In effect March 28th, 1897—Trains leave Seattle for Spokane, St. Paul and East, Rossland  
 Nelson, Kootenay and Kettle River points, 4.00 p.m. This card subject to change without notice.  
 Through tickets to Japan and China via the Northern Pacific Steamship Co.

For full information, Time Cards, etc., call on, or address

**E. E. BLACKWOOD,**

Freight and Passenger Agent, **VICTORIA, B.C.**

**A. D. CHARLTON,**

Asst.-Gen. Pass. Agt. 225 Morrison St. **PORTLAND, Ore.**

## ATLANTIC STEAMSHIP AGENCY

THROUGH TICKETS to and from all European Points, at lowest rates,  
 and by all Fast Lines. For Sailing Dates, Tickets, etc., apply to . . . .

**E. E. BLACKWOOD, VICTORIA, B.C.**

# Canadian Pacific Railway

THE WORLD'S HIGHWAY TO THE PACIFIC COAST, THE ORIENT AND THE ANTIPODES.

THE BEST, CHEAPEST AND QUICKEST WAY TO

**British Columbia, Japan and China, Oregon, Hawaii, Washington,**  
**Fiji and Australia,**

OR

## AROUND THE WORLD.

The Gold Fields of Cariboo and the famed Kootenay Country in British Columbia are reached  
 only by the Canadian Pacific Railway via Revelstoke, B.C.

FOR FURTHER INFORMATION, APPLY TO ANY AGENT OF THE COMPANY OR TO

A. H. NOTMAN, District Passenger Agent, St. John, N.B.

H. J. COLVIN, District Passenger Agent, 197 Washington St.,  
 Boston, Mass.

E. V. SKINNER, General Eastern Agent, 353 Broadway, New  
 York.

O. E. McPHERSON, Asst. Gen. Passenger Agt., 1 King St. E.,  
 Toronto, Ont.

J. F. LEE, District Passenger Agt., 232 S. Clark St., Chicago, Ill.

**C. E. USSHER,**

Asst. Gen. Passenger Agent,  
**MONTREAL**

M. M. STERN, District Passenger Agent, Chronicle Building,  
 San Francisco, Cal.

E. J. COYLE, District Passenger Agent, Vancouver, B.C.

W. R. CALLAWAY, General Passenger Agent, Soo Line, Minn.  
 neapolis, Minn.

ROBERT KERR, General Passenger Agent, Western and Pacific  
 Divisions, Winnipeg, Man.

ARCHER BAKER, European Traffic Agent, 67 and 68 King  
 William St., E.C., and 30 Cockspur St., S.W., London  
 7 James St., Liverpool, Eng., 67 St. Vincent St., Glasgow,  
 Scotland.

**D. McNICOLL**

General Passenger Agent,  
**MONTREAL.**

## TRANSPORTATION COMPANIES.

## Canadian Pacific Navigation Co., Ltd.

## TIME TABLE NO. 28.

(Taking effect December 28th, 1896.)

## VANCOUVER ROUTE.

VICTORIA TO VANCOUVER daily except Monday at 1 o'clock.  
VANCOUVER TO VICTORIA daily except Monday at 13 o'clock or on arrival C.P. Railway No. 1 Train.

## NEW WESTMINSTER ROUTE.

LEAVE VICTORIA—For New Westminster, Ladner's Landing and Lulu Island Sunday at 23 o'clock; Wednesday and Friday at 7 o'clock. Sunday's steamer to New Westminster connects with C.P.R. Train No. 2 going east, Monday.

FOR PLUMPER PASS—Wednesdays and Fridays at 7 o'clock.

FOR MORESBY AND PENDER ISLANDS—Fridays at 7 o'clock.

LEAVE NEW WESTMINSTER—For Victoria Monday at 13:15 o'clock. Thursday and Saturday at 7 o'clock.

FOR PLUMPER PASS—Saturday at 7 o'clock.

FOR PENDER AND MORESBY ISLANDS—Thursday at 7 o'clock.

## FRASER RIVER ROUTE.

Steamer leaves NEW WESTMINSTER for CHILLIWACK and way landings every Tuesday, Thursday and Saturday at 7 o'clock during river navigation.

## ISLANDS ROUTE.

Steamer "Rainbow" leaves Vancouver on Monday at 12 noon and Thursday at 10 a. m. for Texada, Shoal Bay and way landings.

## NORTHERN ROUTE.

Steamships of this Company leave Victoria for Fort Simpson via Vancouver and intermediate ports on the First and Fifteenth of each month. If sufficient inducements offer, will call at points on the West Coast and Queen Charlotte Islands.

## BARCLAY SOUND ROUTE.

Steamer "Willapa" leaves Victoria for Alberni and Sound ports the 10th, 20th and 30th of each month, and for Quatsino and Cape Scott on 30th.

The Company reserve the right of changing this Time Table at any time without notification.

G. A. CARLETON,  
General Agent.

JOHN IRVING,  
Manager.

## For Puget Sound Points

\* ~~~~~ TAKE THE FINE STEAMER ~~~~~ \*

## CITY OF KINGSTON

Speed, 18 knots.	8.00 a.m. Lv MI	... Victoria ...	110 Ar	3.45 a.m.	Tonnage, 1147.
	11.00 a.m. Lv 38	Pt. Townsend.	72 Lv	1.00 a.m.	
	1.45 p.m. Lv 82	Seattle.	28 Lv	10.00 p.m.	
	4.00 p.m. Ar 110	Tacoma.	MI Lv	8.00 p.m.	

Steamer City of Kingston makes connection at Tacoma with Northern Pacific trains to and from points East and South.

\*Daily except Sunday.

E. E. BLACKWOOD, Agent.

VICTORIA, B.C.

Spokane Falls & Northern, Nelson and Fort Sheppard,  
Red Mountain Railways.

The only all-rail route without change of cars between Spokane, Rossland and Nelson; also between Nelson and Rossland.

## DAILY EXCEPT SUNDAY.

Leave.	Arrive.
7:30 a.m. .... Spokane.	7:00 p.m.
10:30 a.m. .... Rossland.	3:25 p.m.
9:00 a.m. .... Nelson.	5:20 p.m.

Close connections at Nelson with steamer for Kaslo and all Kootenay Lake points. Passengers for Kettle River and Boundary Creek connect at Marcus with stage daily.

## BRITISH COLUMBIA SMELTING &amp; REFINING CO.

— BUYERS OF —

## GOLD, SILVER AND COPPER ORES.

Correspondence Solicited. Smelter &amp; Offices, Trail, B.C.

JOHN O. NORBOM,  
Consulting Mechanical Engineer.

Mining, Milling, Hoisting, Pumping, Hydraulic and Air Com-  
pressing Machinery. Power Generation and Transmission.  
Twelve years' experience in the United States of America.

Vancouver, B.C.

P.O. Drawer 754.

## The Columbia &amp; Kootenay Steam Navigation Co., Ltd.

## TIME TABLE NO. 10.

In effect June 8th, 1896.

## ARROWHEAD-TRAIL ROUTE, STEAMER "NAKUSP."

South bound; read down.	North bound; read up
Mon. Wed. Fri. 7 p.m. De ARROWHEAD	Ar 11.30 a.m. Wed. Fri. Sun
" " " 11 p.m. Ar NAKUSP	De 7.30 a.m. " " "
" " " 12 m. De	Ar 6 a.m. " " "
Tues. Thurs. Sat. 9 a.m. Ar	De 8.30 p.m. Tues. Thurs. Sat
" " " 12 noon De	Ar 8 p.m. " " "
" " " 2 p.m. Ar	De 4.30 p.m. " " "

Connections at Arrowhead with C.P.R. to and from Revelstoke and all points east and west; at Nakusp with Nakusp & Slocan R. to and from Slocan points; at Robson with C. & K. R. to and from Nelson and Kootenay Lake points; at Trail with C. & W. R. to and from Rossland; at Trail with Str. "Trail" to and from Waneta, Northport and Spokane.

## TRAIL-NORTHPORT ROUTE, STEAMER "TRAIL."

8 a.m. De TRAIL	Ar 4.30 p.m.
Daily except Sun. 9 a.m. Ar WANETA	De 3 p.m. Daily except Sun.
10 a.m. Ar NORTHPORT	De 1 p.m.

Connections at Northport with S.F. & N.R. to and from Spokane and way points; at Trail with C. & W. R. to and from Rossland, and with Str. "Nakusp" to and from Robson, Nakusp and Revelstoke.

## KOOTENAY LAKE ROUTE, STEAMER "KOKANEE."

4.00 p.m. De NELSON	Ar 9.30 a.m. Daily except Sun.
8 p.m. Ar KASLO	De 5.30 a.m.

Saturday, June 6th and every second Saturday following, steamer leaves Kaslo at 10 p.m. for Bonner's Ferry; returning leaves Bonner's Ferry Sun. at noon. Connections at Nelson with C. & K. R. to and from Robson, Trail, Rossland, Nakusp, Revelstoke and C.P.R. points; at Nelson with N. & F.S.R. to and from Spokane and way points; at Kaslo with K. & S. R. to and from Slocan points; at Bonner's Ferry with G.N.R.

The right is reserved to change this schedule at any time without notice.

For tickets, rates, etc., apply at Company's office, Nelson.

T. ALLAN,  
SECRETARY.

J. W. TROUP,  
MANAGER, Nelson B.C.

## INTERNATIONAL NAVIGATION &amp; TRADING COMPANY, LTD.

Steamers "International" and "Alberta" on Kootenay Lake and River.

## TIME CARD IN EFFECT 1st OCTOBER, 1897.

Subject to Change without Notice.

Five-Mile Point Connection with all Passenger Trains of N. & F. S. R'y, to and from Northport, Rossland and Spokane.

Tickets sold and Baggage Checked to all U.S. Points.

Leave Kaslo for Nelson and Way Points, daily except Sunday, 5.45 a.m.  
Arrive Northport, 12:15 p.m.; Rossland, 3:40 p.m.; Spokane, 6 p.m.  
Leave Nelson for Kaslo and Way Points, daily except Sunday, 4.45 p.m.  
Leaving Spokane, 8 a.m.; Rossland, 10:30 a.m.; Northport, 1:50 p.m.

## NEW SERVICE ON KOOTENAY LAKE.

Leave Nelson for Kaslo, etc., Tues., Wed., Thurs., Fri., Sat.... 8:30 a.m.  
Arrive Kaslo..... 12:30 p.m.  
Leave Kaslo for Nelson, etc., Mon., Tues., Wed., Thurs., Fri.. 4:00 p.m.  
Arrive Nelson..... 8:00 p.m.

## BONNER'S FERRY AND KOOTENAY RIVER SERVICE.

\*Leave Kaslo, Sat.... 4 p.m. | Leave Bonner's Ferry, Sun. 1 p.m.  
Arrive Boundary, Sun.... 12 p.m. | Arrive Boundary, Sun.... 5 p.m.  
Arr Bonner's Ferry, Sun. 10:30 a.m. | " Kaslo, Sun.... 10 p.m.

Close connection at Bonner's Ferry with trains East bound, leaving Spokane 7:40 a.m., and West bound, arriving Spokane 7 p.m.

\*The Alberta awaits the arrival of the International before leaving for Bonner's Ferry.

GEORGE ALEXANDER,

Kaslo, B.C., 12th July, 1897.

General Manager.

## Change in Time Card

After end of October, the SS. Alberta passenger service, leaving Nelson 8 a.m. and Kaslo 4 p.m., will be discontinued.

## Kaslo &amp; Slocan Railway.

## TIME CARD.

Subject to change without notice.

Trains run on Pacific standard time

Going west.	Going east.
Leave 8.00 a.m. .... Kaslo.	Arrive 3.50 p.m.
" 8.36 " .... South Fork	" 3.15 "
" 9.36 " .... Sproule's.	" 2.15 "
" 9.51 " .... Whitewater.	" 2.00 "
" 10.03 " .... Bear Lake.	" 1.48 "
" 10.18 " .... McGuigan.	" 1.33 "
" 10.38 " .... Cody Junction.	" 1.12 "
Arrive 10.50 " .... Sandon.	Leave 1.00 "

## CODY LINE.

Leave 11.00 a.m. .... Sandon. Arrive 11.45 a.m. || Arrive 11.20 a.m. .... Cody. | Leave 11.25 a.m. |

ROBT. IRVING,  
G. F. & F. A.

GEO. F. COPELAND,  
Superintendent.



# The Hudson's Bay Company

HAVE  
**GENERAL STORES**  
AT

Baie de Peres  
Battleford  
Calgary  
Chapleau  
Dauphin  
Deloraine  
Edmonton  
Fort William  
Kamloops  
Langley  
Lethbridge

Lower Fort Garry  
Macleod  
Mattawa  
Morden  
Nelson  
Pincher Creek  
Portage la Prairie  
Port Simpson  
Prince Albert  
Qu'Appelle

Quesnelle  
Rat Portage  
Riding Mountain  
Shoal Lake  
Sudbury  
Touchwood Hills  
Vancouver  
Victoria  
Vernon  
Whitewood  
Winnipeg

And at other principal points in British Columbia, Manitoba and Northwest Territories. Purchasers will find at these Stores the best goods at moderate prices, imported direct from all the principal markets of the world.



**J. J. Sehl, Kaslo and Sandon,**  
B.C.

MANUFACTURER AND  
DIRECT IMPORTER OF

**Furniture, Carpets, Crockery,**

Wall Papers, Curtains of all kinds.

... LINOLEUMS IN ALL  
WIDTHS UP TO 12 FEET

....House Furnishings of all Descriptions....

I carry the largest stock in the Kootenay Country,  
and can fill large orders on short notice . . . . .

**Bewick, Moreing & Co.**

(OF LONDON, ENGLAND.)

Bewick, Moreing & Co. are prepared to undertake the Geological and Mineralogical investigation of new districts, to report on Mines and Mineral properties, to open out Mines, or undertake the management of such as are already opened.

They are also prepared to treat with prospectors and others with a view to the introduction of approved properties to English and other capitalists.

**Mining Engineers, Mine Managers and Assayers,**  
512 Cordova Street, VANCOUVER, B.C.

Resident Partner, J. D. KENDALL, C.E., F.G.S., M.I.M.E.



**CANADIAN RAND DRILL CO.**

Sherbrooke AND Montreal.

**MINING  
MACHINERY.**

B.C. Agent, R. F. Mendenhall,  
**ROSSLAND, B.C.**



**The Wm. Hamilton** LIMITED  
MANUFACTURERS  
—OF—  
**Manufacturing Co.**

**MINING MACHINERY**

UNDER LICENSE FROM

**The Edward P. Allis Co.,**  
OF MILWAUKEE, WIS.

**Engines AND Boilers, Saw, Shingle**  
AND PLANING MILL MACHINERY.

—SOLE AGENTS FOR—

**Bertram & Sons "Dundas" Iron Working Machinery.**

BRANCH OFFICE:  
**HASTINGS STREET, = VANCOUVER, B.C.**  
WORKS: **PETERBORO, ONT.**